ABSTRACT OF

The Hunterian Lectures

ON

THE SURGERY OF THE KIDNEY.

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LECTURE I.

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THE ORIGIN AND PROGRESS OF RENAL SURGERY AND THE CONSERVATIVE TENDENCY OF ITS RECENT DEVELOPMENT.

MR. PRESIDENT AND GENTLEMEN, — In selecting the subject for the lectures which by the grace of the Council I am about to deliver I was influenced by the fact that "renal surgery," though it has attracted a good deal of attention amongst surgeons during the last twenty years, has not yet received the general recognition by the profession at large to which it is entitled, nor has it hitherto been the theme of any Hunterian professor. I propose in this lecture to describe briefly the origin, and then to trace the progress, of this quite modern branch of surgery.

History.—In the sixteenth, seventeenth, and eighteenth centuries the practicability of nephrotomy was repeatedly discussed by Camerarius and François Rousset in 1581, by Shenck in 1584, and other early writers, and in 1829 it found a very ardent supporter in P. N. Gerdy.[1] As regards nephrectomy, various physiological experiments upon animals were undertaken by Zambeccarius[2] about the year 1670, and Roonhuyzen[3] in 1672, to show that life could be well maintained after removing one of the kidneys. The cases of the archer of Meudon, of the British consul at Venice, and others, which had found their way into surgical literature, may be dismissed in the words of M. Hevin,[4] who wrote in the year 1757: "It is very doubtful, if not absolutely improbable, that cutting into the kidney had ever been practised without the operation having been determined by an abscess swelling or by a fistula due to renal abscess which had broken and discharged in the lumbar region." None of these cases had any influence in encouraging surgeons to operate upon the kidney and no surgical treatment for any kind of renal disease was systematically employed until the second half of the present century had well advanced.

Nephrectomy.—The dawn of renal surgery admittedly dates from Aug. 2nd, 1869, when Gustav Simon, of Heidelberg, successfully removed by the lumbar method the kidney of a woman who had an ureteral fistula opening upon the abdominal wall above the pubes and following on ovariotomy done one and a half years before. Simon performed his operation in face of the pronouncement long before made by Rayer that it was "madness to dream of extirpating a kidney in the human subject." He no doubt was aware of the experimental results of Prévost and Dumas (1823), of Claude Bernard, Rayer, Meissner, Shephard, all of whom established the fact that animals could live with only one kidney. For himself, he compared the results of 15 hysterectomies with 15 nephrectomies practised on animals and was satisfied that there was no more danger from a surgical point of view in the one operation than in the other and at the same time he convinced himself that the physiological changes effected by the kidneys could be amply performed by one after the ablation of the other organ. Rather more than a year after Simon's case Gilmore in America followed (December, 1870) with a very successful nephrectomy for a painful shrunken fibrous kidney in a woman, five months pregnant, who recovered without a miscarriage. In England the first nephrectomy was performed by Arthur E. Durham on May 14th, 1872. The next was by Jessop and the third by Barker. Barker, who had made himself thoroughly familiar with Simon's work, read two important papers before the Royal Medical and Chirurgical Society; one in March, 1880, and the other in April, 1881. He therein tabulated all the nephrectomies done up to those dates and thus brought the whole subject of extirpation of the kidney before the notice of British surgeons, who till then, for the most part, were quite unfamiliar with it. In France, where the earliest and most ardent advocates of nephrotomy had lived, nephrectomy was for several years either neglected or opposed. It was not until May 20th, 1880, nearly eleven years after Simon's successful initiative, that M. Léon Le Fort practised the first nephrectomy done in France.

Nephrotomy is the operation which had received most consideration in past times, especially in its bearing on the treatment of renal calculous disorders; but it was not in all probability ever systematically put into practice until 1870. Previously to 1870 fluid swellings, believed to be of the kidney, had been punctured and opened by the thermo-cautery and perinephric abscesses had been incised through the loin. On April 27th, 1869, three months before Gustav Simon's first nephrectomy, a paper was read by Thomas Smith describing a method for exposing the kidney through the loin. This he advocated for diagnostic purposes and for the extraction of a calculus if of suitable size and shape and capable of removal through the renal pelvis, but not if fixed in the substance of the kidney or if its removal entailed cutting into the normal secreting structure. Though the author had no actual case of his own to record and advocated nothing more than had been recommended on several occasions during the two preceding centuries, there can, I think, be little doubt that his paper, coming when it did, influenced the minds of surgeons to a degree which previous similar suggestions had failed to do. In July of the same year (1869) Annandale, and in January, 1870, Spencer Wells[5] wrote in favour of nephrotomy in some cases of renal calculus. These articles, together with Simon's success, were all factors leading up to the application of nephrotomy to a class of case for which no one had as yet, so far as our absolute knowledge goes, suggested it—namely, for cases of renal calculus in a kidney otherwise normal. In 1870 Bryant performed nephrotomy for tuberculous pyonephrosis, but at too late a stage to save his patient; and in the same year Gunn and Durham each cut down *upon* the kidney; and Lente and Barbour each cut *into* the kidney with the object of removing calculi, but none were found. All four patients recovered. During the next ten years, 1870–1880, nephrotomy was done in some half-dozen cases (according to Dickinson's tables), in each of which there was a large pyonephrosis, more or less pointing at the loin; and in four of these calculi were extracted.

Nephrolithotomy.—No further advance, however, was made in the operative treatment of renal disorders till Feb. 11th, 1880, when I successfully removed a mulberry calculus weighing 31 gr. from the undistended and, to the naked eye, quite normal kidney of a young woman. The kidney was exposed through an oblique lumbar incision and the stone reached and removed through the renal parenchyma. This case demonstrated for the first time that a stone could be removed safely by cutting freely upon it through a thick layer of renal tissue. It thus became the starting point of both the development and the conservatism of renal surgery which I am persuaded will become more and more conservative in the future. The second nephrolithotomy was performed in August, 1881, by the late Mr. Marcus Beck; others more or less quickly followed and in the list of my operations for removal of renal calculus by nephrolithotomy I am able to show 34 operations with recovery in 33 and death in 1. These results disprove the supposed dangers of nephrolithotomy and show the invalidity of the objections which in all previous times had been urged against the proposal to operate upon a kidney not already converted into a mere abscess sac.

Nephropexy.—Fourten months after the first nephrolithotomy Hahn of Berlin introduced an operation at first called nephrorrhaphy and afterwards by the French writers

[1] P. N. Gerdy: Anatomie des Formes Extérieures du Corps Humain. Paris et Bruxelles, 1829. See a long footnote on pages 150, 151, 152, 153, and 154.

[2] Zambeccarius: Experimenta circa divers var. animal. viv. esset viac. et supplem. (act. nov. erudit Lipsiae), t. sect. 6, p. 275.

[3] Roonhuyzen: Observ. Chir., part i., obs. 22. Laïtte: Sur les cas où la Néphrectomie defait avec succès. (Mémoire de l'Académie de Chirurgie, édition 1819, tome iii., p. 235.)

[4] Hévin: Researches, Historical and Critical, on Nephrotomy or Cutting into the Kidney, 1757. (Mémoire de l'Académie Royale de Chirurgie, tome iii., part 2, sect. 2.)

[5] Medical Times and Gazette, Jan. 8th, 1870.

nephropexy for fixing moveable kidneys. This consisted in an incision alongside the sacro-lumbalis muscle from the twelfth rib to the crest of the ilium; the quadratus lumborum was cut and the fibro-fatty capsule of the kidney opened along the outer border of the kidney; the fibro-fatty capsule was separated to some extent from the kidney and dragged forcibly backwards into the wound along with it. By means of six or eight catgut sutures this capsule was stitched into the wound and the wound itself plugged with carbolic gauze. In his account, published in July, 1881, Hahn describes two cases thus operated upon by himself in April of that year. The patients were both women and recovered in four weeks with the kidneys as securely in their attached position as immediately after operation. This was an important advance because it at once had the effect of putting a stop to nephrectomy for moveable kidney which had been recommended and practised by Martin of Berlin in 1878. I never felt confidence in this mode of fixation and preferred to attach the kidney itself to the cut edges of the transversalis fascia and the aponeurosis of the transversalis muscle by means of three sutures dipping deeply into the posterior surface of the organ and running for from three-quarters of an inch to an inch in its substance. I have used various materials for suture—stout catgut, kangaroo tendon, and silk, but now always employ silk. The results obtained have in most of the cases been perfectly satisfactory, and I see from time to time patients upon whom I operated nine or ten years ago with their kidneys as firmly fixed as can be desired and who have been quite free from their former symptoms ever since the operation. Tuffier recommends partial decortication of the kidney and the suturing of the tunica propria to the edges of the parietal wound. This done he thinks the parenchyma does not fail to attach itself firmly to the neighbouring tissue by the whole of the exposed area. A fourth method has more recently been suggested by Vulliet of Geneva and was first tried by his friend Poullet of Lyons. It consists in making use of a long slender slip of the tendon of the erector spinæ of the patient as the means of fixation of the kidney. I prefer Vulliet's method to Tuffier's, but neither is so simple, or so rapidly done as, or more efficacious than my own.

Partial excisions.—Another most important advance in the conservatism of the surgery of the kidney is the excision of diseased portions of the organ in place of nephrectomy. This step was a natural result of the establishment of nephrolithotomy as a sound surgical procedure. The fear of uncontrollable bleeding during the operation and the doubts as to the healing power of a kidney cut into or otherwise wounded being once removed, the attempt to save the greater part of the organ when only a small portion was diseased or injured was bound to be made. Tuffier's experiments on animals in 1888 and Barth's histological researches supply ample proofs of the healing power of the kidney and of the process by which this healing is accomplished, even after extirpation of considerable portions. Dr. Paoli[6] of Perugia performed extra-peritoneal operations for resection of the kidney upon 25 dogs, cats, and rabbits with perfect recovery and published his results in 1890. But such experiments were not required to convince us that wounds of the human kidney readily heal. In 1883 and 1884 I collected for my work on diseases of the kidney a number of cases proving the cicatrising capacity of the human kidney after incised, punctured, lacerated, and also gunshot wounds. Up to the present time partial excision or resection has been very rarely performed. An excellent epitome of the work hitherto done in this direction is contained in a paper read before the British Medical Association at Carlisle in 1896 by Oscar Bloch of Copenhagen. He therein reports a case in which he removed, in September, 1895, half the kidney affected by a new growth and gives abstracts of ten cases which he collected from German and French sources.

My own experience of resection commenced in November, 1890, when in drawing out a kidney of a young man, aged twenty-four years, which I was exploring for calculus, several abscesses were seen in the cortex, which I opened, evacuated, and scraped. The kidney was replaced and the loin wound closed, but a week later I had to remove the whole kidney on account of acute general pyonephritis. The man quite recovered after a long convalescence and is well and leading an active life to-day. In April, 1892,[7] I scraped out six tuberculous masses in the kidney of a man, aged twenty-eight years, which I was exploring for calculus. An excellent recovery followed. In a third case I found three areas of grouped miliary tubercles at different points of the kidney. I removed them by excising three wedges of the renal parenchyma and in so doing opened up the calyces. The patient made a rapid recovery and left the home without a sinus on Jan. 16th, 1895. In March, 1897, two years and two months afterwards, the patient was quite well. In three other cases I have done similar successful operations on women. Partial resections are capable of a wider application than has yet been given to the operation, especially in the case of tumours taking origin from the renal capsule, and those which, though originating in the perinephric tissue, grow into, and partially destroy, the kidney itself. Bardenheuer and, in this country, E. Owen and Keetley, acting on the same conservative principle, have treated cases of accidental injuries of the kidneys by taking away a portion and leaving the bulk of the organ.

Operations on the ureter.—Operations upon the ureter are an advance of the last few years, but not many have been recorded up to the present time. They are of very considerable importance because of the influence they are having, and are destined to have, upon renal surgery generally. Ureterotomy has been employed in the treatment of hydronephrosis, calculus, and calculous anuria. Ureterectomy will improve the results of operations for advanced tuberculous disease and also of those performed for calculous pyonephrosis complicated with ureteritis. Ureteral anastomosis and other plastic operations on the ureter will save many kidneys which would formerly have been nephrectomised on account of hydronephrosis, fistulæ, and surgical injuries of the ureter. It is of interest to note that ureterotomy, like nephrotomy and nephrolithotomy, was suggested many years before it was put into practice. The first allusion to it which I have met with is in Velpeau's "Surgery" (edition 1851, p. 1021). In 1856 a remarkable series of articles was published by Dr. C. Gigon of Angoulême[8] in which he suggested opening the ureter with the object of establishing an artificial passage for the escape of the urine in a case of calculous anuria.

Ureterotomy for calculus.—In 1879 Thomas Addis Emmet of New York (in the edition of his work on the "Principles and Practice of Gynæcology") stated that in three cases he had met with stones obstructing the vesical end of the ureters. In one he removed the stone through the bladder by means of curette forceps after opening the bladder. In the second case he removed a stone weighing 96 grains by cutting upon it through the vaginal wall without having opened either the bladder or the peritoneum and he closed the opening with interrupted sutures. His third case does not seem to have been operated upon. In 1882 Bardenheuer performed ureterotomy for calculous anuria, removed four stones, one of which was impacted in the upper end of the ureter, and closed the ureteral incision by sutures. In Bardenheuer's case the urine did not find its way subsequently into the bladder, so he divided the ureter and established a lumbar ureteral fistula. In 1885 Cullingworth removed a calculus from the lower end of the ureter of a woman by abdominal section. In and since 1887 ureterotomy was performed for the extraction of calculi impacted in different parts of the ureter by means of a retro-peritoneal operation in the lumbar or inguino-lumbar region by Godlee in 1887, by Kirkham and Torrey in 1889, by Twynam in 1890 and by several other surgeons since.

Ureterotomy for stricture and valvular obstruction.—Another application of ureterotomy is in cases of ureteral stenosis. Simon in 1876 was the first to give theoretical directions for this operation. I do not know that he ever performed it. Trendelenburg in 1890 was, I believe, the first to make the attempt. In 1892 Fenger of Chicago performed the first successful ureterotomy for a valvular stricture of the ureter; on Nov. 26th of the same year he operated upon a man, aged forty-seven years, for intermittent hydronephrosis of twenty years' duration due to a stricture of the ureter close to its junction with the infundibulum. The kidney and upper end of the ureter were exposed through a lumbar incision. The upper end of the ureter for half an inch was found embedded in cicatricial tissue; below this the ureter was normal. A longitudinal incision, a centimetre long, was made into the ureter just below the cicatrix and the

[6] Verhandlungen des Internationalen Medicinischen Congresses, Berlin, 1890.

[7] Brit. Med. Jour., vol. i., 1892, p. 899.

[8] L'Union Médicale, Feb. 14th, 16th, and 21st, 1856.

strictured part of the tube was divided from below upwards to the renal pelvis. The ends of the incision in the ureter were stitched together by the Heineke-Mikulicz manner for closing the pylorus after division for stenosis. I have recently done a similar operation on a female patient, aged twenty-nine years, who for four or five months has had intermittent periods of aching in the right kidney, which was very moveable, associated with very frequent micturition. At these times the urine became very thick and offensive and at other times there was pus in small but distinct quantity in the urine. There was marked tenderness on bimanual examination so that renal calculus was suspected. Through a lumbar incision the upper end of the kidney was seen to be firmly bound down by tough fibrous adhesions. The pelvis of the kidney was distended to the size of a tennis ball and the ureter was so constricted as barely to admit the smallest ureteral catheter. The kidney was incised along the convex border and thoroughly explored for stone. None was present, but the calyces were found to be slightly sacculated. The constricted orifice of the ureter was longitudinally divided upon the catheter, which was passed from a small opening in the infundibulum through the stricture to the bladder, and the ends of the incision were drawn together by the Heineke-Mikulicz method by means of two fine silk sutures passed after the manner of Lembert. Nephropexy was then performed by Vulliet's plan. The wound healed entirely by first intention and there has been no return since of the symptoms which led to the operation.

Resection of the ureter.—Resection of the ureter is the operation whereby an inch or two, or a little more, of the duct is removed and the ureter is united to the infundibulum, or the divided ends of the ureter to one another, as the case may be, so as to restore the continuity of the conduit. It was first proposed by Marcel Beaudoin in 1891 and first performed by Küster in May, 1891. Küster reported his case at the Congress of Surgeons held in Berlin in 1892.[9] The patient was a boy, aged thirteen years, with only a single kidney, who for two years had passed *all* his urine through a fistula, following lumbar nephrotomy, for hydronephrosis. The cause of the hydronephrosis was a very slight stricture of the ureter near the renal pelvis. The strictured part of the ureter was excised and the cutend of the ureter was sutured to the renal pelvis. By the end of four months from the date of this operation all the urine was passed naturally and the fistula was quite closed. Cramer of Cologne followed Küster's lead in a case of hydronephrosis in 1893 and again on operating on a case of pyonephrosis in 1894.[10] Weller Van Hook in 1893 published a case in which he practised Küster's operation, but immediately he had completed it he found an obstruction in the ureter lower down and therefore removed the kidney. In 1897 I operated upon a female patient, aged fifty-six years, for painful intermittent hydronephrosis and found the ureter running obliquely in the wall of the distended renal pelvis. In this case I first laid the ureter and renal pelvis freely open into one another and stitched the divided edges of the ureter to those of the renal pelvis. The result was not satisfactory so I excised three-quarters of an inch of the ureter, closed the greater part of the incision in the renal pelvis and then sutured the ureter to the lowest part of the infundibulum as Küster had done. Again the result did not satisfy me because of the small calibre and extreme tenuity of the ureter, so to avoid a fistula and a long convalescence on the one hand, or stenosis of the ureter at the site of operation and a subsequent nephrectomy on the other hand, I removed the kidney there and then. The operations for resection of the ureter for hydronephrosis (or pyonephrosis) above quoted show that the aim in our treatment of hydronephrosis ought to be conservative. Before actually proceeding to resect the ureter for stricture or a valve the surgeon should not fail to ascertain whether there is a clear channel in the ureter below the stricture or valve to be divided, otherwise he may find that the operation is useless when completed.

Ureterectomy.—By resection of the ureter is meant the cutting out of a short piece of the duct, not exceeding from two to two and a half inches, with the object of restoring it to its proper capacity as a conduit of the urine to the bladder. It is a truly conservative operation. More extensive excisions of the ureter, and even the removal of the whole length of the duct, have of late years been occasionally practised and with most beneficial results; but, like nephrectomy, such operations are, of course, not of a conservative nature. Ureterectomy, partial or complete, has been performed for tuberculosis, suppuration in the dilated ureter, hydrops of the ureter, and for the cure of suppurating lumbar fistula due to the presence of a diseased ureter, after nephrectomy had been done. The operation may be either primary or secondary. It is primary when the ureter is removed simultaneously with the kidney; secondary when the excision of the ureter follows the removal of the kidney as a distinct subsequent operation. Two different routes have been followed in the complete removal—namely, the transperitoneal and the extra-peritoneal; but the latter gives so complete and satisfactory a field for the necessary manipulations and has other anatomical and surgical advantages that it is not probable the transperitoneal method will find any followers. Several different routes have been taken or suggested for the partial ureterectomies affecting the lower part of the duct. In the male the inguinal extra-peritoneal route—i.e., through an incision the same as the lower part of the incision for complete extra-peritoneal ureterectomy—is the best, but in the female the para-sacral, or a combination of the inguinal and vaginal methods as practised by Kelly, has advantages over the others.

Wounds of the ureter.—Another way in which great advance has been made in renal surgery in the conservative direction is in the management of wounds of the ureter inflicted accidentally during the course of such operations as ovariotomy, abdominal and vaginal hysterectomy, and the removal of suppurating Fallopian tubes and ovaries. The ureter has also been wounded in at least one instance during the course of an operation on the pelvis by the method known as Kraske's. For these injuries nephrectomy had hitherto been performed and in many instances of the kind healthy kidneys have been removed. This is a discomforting reflection; and not unnaturally as soon as accidental surgical wounds became of pretty frequent occurrence there were surgeons who set themselves to devise some alternative for nephrectomy. Numerous experiments on animals were made by Tuffier in France, Boari and Pozzi, Gusserow and Pawlik, Alfonso Poggi of Bologna, Van Hook, Byron Robinson, Bovée, and others in America, and a great variety of methods have been devised for remedying the injury without sacrificing the kidney. They may be grouped into two distinct classes—viz., (1) those designed to restore the continuity of the ureter; and, failing this, (2) those for anastomosing the cut end of the ureter with the external surface, with the intestine, or with the bladder. If the ureter should be wounded during an abdominal or vaginal operation and the injury is detected by the surgeon at the time, one or the other of these operations ought to be, if possible, immediately practised. Such a complication can only be suitably grappled with by one familiar with the varieties and possibilities of surgery which recent experiments and scattered cases have brought to light. It is very desirable, therefore, that surgeons and gynæcologists who are exposed to the risks of injuring the ureter should have a fair working knowledge of the remedies, short of sacrificing the kidney, which are available.

Uretero-ureteral anastomosis.—Schopf,[11] in 1886, was the first who practised uretero-ureteral anastomosis in the human subject. He employed the end-to-end method. In 1887 Alfonso Poggi[12] of Bologna invaginated the upper into the lower end of the divided ureter. This is the end-in-end method. Six years after Poggi's experiments Van Hook[13] of Chicago published a description of his experiments on dogs of the lateral implantation of the upper portion of the ureter into an opening in the side of the lower portion. Van Hook points out an important fact in connexion with these ureteral operations—namely, "the lumen of the tube can be enormously increased by stretching without prejudice to the integrity of its walls." When the upper portion of the divided ureter is very much distended and has to be puckered to get it into the lower portion, which may be only half its size or even less, three sutures instead of one might be advantageously employed as was done by Emmet.[14] Finally, Bovée in 1895 adopted a plan which consists in suturing the cut ends together obliquely. He published

[9] Archiv für Klinische Chirurgie, vol. xliv., 1892, p. 850.
[10] Centralblatt für Chirurgie, 1894, No. 47, p. 1145.

[11] F. Schopf: Centralblatt für Gynäkologie, No. 30, 1887.
[12] Riforma Medica, 1887-88, N.S. viii., 39.
[13] Journal of the American Medical Association. No. 21, July—December, 1893.
[14] Bache Emmet: The American Journal of Obstetrics, April, 1896.

an account of it in January, 1897.[15] He performed his operation on a woman, aged thirty-six years, whose right ureter he unintentionally included in a ligature and then divided when excising the right ovary and tube for an abscess. Of the 12 cases of the application of these methods to ureters injured during surgical operations, in 11 the section of the duct was complete and in one incomplete (Pawlik's case). To this case of incomplete section of the ureter I may add one of my own in which the dilated ureter was three parts divided. In both of them the mode of treatment was practically the same—viz., closure of the wound by very fine silk sutures passed in the fashion of Lembert and covering the injured ureter with the peritoneum. For transverse wounds which do not completely divide the ureter but involve one-third or more of its circumference Van Hook has proposed the following operation: "Make two longitudinal incisions in the ureter with a pair of small scissors, beginning at the middle of the wound to be closed, and suture longitudinally"—i.e., in the direction of the long axis of the tube—"with the object of producing a very wide instead of a very contracted lumen." By this method cicatricial contraction cannot obstruct the flow of urine. When the wound involves the peritoneal aspect of the duct—as it necessarily does in accidents during abdominal operations—he advises that the union should be protected by surrounding it with a fold of peritoneum. A mere puncture or a small wound which merely gapes slightly may be securely closed by one or more Lembert sutures and a covering of peritoneum.

The classes of cases in which uretero-ureteral anastomosis is applicable are the following. To restore the continuity of the duct (1) after accidental section during abdominal operations; (2) after unintentional resection of a short length of the duct during abdominal operations (two or even three inches may be removed and the ends afterwards brought together without undue tension on the union); (3) after resection of a portion of the ureter for stricture, ulceration, sloughing around a calculus, or any other condition which, if not removed, would terminate in stenosis; and (4) after rupture and other injuries from external violence—as soon as the case is diagnosed when intra-peritoneal and before suppuration or sloughing occurs when retro-peritoneal.

Ureteral grafting.—An immense amount of labour and ingenuity has been given to devising methods (1) for the cure of ureteral fistula and (2) for the prevention of ureteral fistula and of nephrectomy in cases in which the ureter has suffered a loss of substance too great to permit of uretero-ureteral anastomosis. Very numerous have been the experiments to test the feasibility of grafting the cut end of the ureter (1) into the bladder; (2) into the rectum; (3) into other parts of the small and large intestines; and (4) on to the skin in the loin. Various other ingenious plans have been proposed as substitutes for nephrectomy whereby the urine is conducted to the bladder even after parts of the ureter, too great to permit of uretero-ureteral anastomosis or of bladder-grafting, have been cut away or otherwise destroyed. But the results of actual operations show that grafting into the bladder—uretéro-cysto-néostomie as Bazy has named it—should be always the operation of choice when it can possibly be done. All this industry is the result of the comparative frequency of uretero-vaginal and uretero-uterine fistulæ, especially since the vulgarisation of vaginal hysterectomy. Thus a great many ingenious operations, some of great difficulty and requiring attention to very minute operative details, have been practised or proposed with the object of avoiding nephrectomy. How needful this was must be only too well known to surgeons who have heard or read of such cases as the following. A woman who had undergone vaginal hysterectomy by a distinguished gynæcologist recovered with an uretero-vaginal fistula. The patient was handed over to a distinguished general surgeon to be cured of this fistula. Efforts were made in a most careful manner to ascertain which ureter it was which had been wounded and become entangled in the vaginal cicatrix. These failing to afford definite information the ureter of the suspected kidney was exposed through a lumbar incision and was temporarily ligatured. During this experiment—which was, of course, made under chloroform—no urine escaped by the vagina but a certain amount was withdrawn by catheter from the bladder at the expiration of a given time. The inference was that the ureter temporarily ligatured was the one involved in the vaginal fistula, so the corresponding kidney was there and then excised. Imagine the surgeon's chagrin and the patient's distress the next day when it was discovered that though she had lost a healthy kidney the operation had not cured her of the fistula, for the wrong organ had been removed.

It is impossible for me here to describe the work done or even to name the many workers in this field of experimental and clinical surgery. I can only mention briefly the most satisfactory plastic operations upon the ureter by vesical grafting. They may be classified as follows: (1) invaginating the fistulous aperture itself into the bladder after first incising the vesico-vaginal septum; (2) grafting the ureter into the bladder through the vagina; (3) grafting the ureter into the bladder by an extra-peritoneal route through an incision in the abdominal wall; and (4) grafting the ureter into the bladder by a transperitoneal or intra-peritoneal operation.

Since Simon in 1869 first practised nephrectomy as the remedy for ureteral fistula the operation has been frequently performed for this cause up to the present time. Tuffier in a recently published communication refers to 24 cases which he had collected. But with our present knowledge of the surgery of the ureter nephrectomy for fistula has become in most instances, I do not say in all, an unjustifiable procedure. It ought to be reserved for quite exceptional cases, as, for instance, where the state of the kidney itself is prejudicial to health; or when the surgeon having tried and failed has given up the attempt to cure a troublesome and loathsome fistula by plastic operation. Nephrectomy as a primary operation for surgical injuries of the ureter is quite unjustifiable and as a secondary operation for these injuries it comes under the criticism just made upon it for the treatment of fistula. As a remedy for moveable kidney nephrectomy has come and gone, never, it is hoped, to return. In cases of limited suppuration, of circumscribed tuberculous disease, of innocent growths, and in certain injuries of the kidney, partial excisions are now being performed in place of nephrectomy. In many instances of calculous pyonephroses irrigation of the renal calyces and infundibulum, followed by suture of the kidney, has taken the place of nephrectomy. In hydronephrosis a few laudable attempts have been made, and in a good proportion of them with success, to remove the cause of the obstruction and thus by means of a plastic operation to spare the kidney. In fact, the tendency of the surgery of to-day is to save as much of the kidney tissue as possible consistently with the safety and well-being of the patient. In this very imperfect survey of the origin and progress of renal surgery I hope I have succeeded in showing that whilst its origin was nephrectomy, its progress, especially during the last ten years, has been in the direction of rendering nephrectomy more and more an operation to be avoided.

[15] Wesley Bovée: Annals of Surgery, January, 1897; also September, 1897, p. 318.

BEDFORD MEDICAL SOCIETY.—A general meeting of this society was held on March 31st, the President, Mr. M. F. Cock, being in the chair.—The President delivered an address referring especially to the Midwives Registration and Vaccination Bills and medical aid associations.—A discussion on the Midwives Bill followed and a resolution condemning the Bill was unanimously passed.—Dr. Goldsmith introduced a discussion on Post-partum Hæmorrhage with special reference to the Treatment by Compression of the Abdominal Aorta.—Dr. Coombs showed a man with Coloboma of the Iris and Choroid.—Dr. Hartley showed a woman who had suffered from a large Varicose Vein which had become obliterated by an attack of Phlebitis and had entirely disappeared.—Dr. Ross showed sections of Carcinoma of the Mamma and Myeloid Sarcoma of the Femur.

LITERARY INTELLIGENCE.—A new work entitled "The Blood: How to Examine and Diagnose its Diseases," by Mr. Alfred C. Coles, M.D. Edin., with six coloured plates, will be published in a few days by Messrs. J. & A. Churchill. The same firm also announce a fifth edition of Tomes' "Manual of Dental Anatomy" with several new illustrations. This well-known handbook is intended for the dental student qualifying for examination, but to meet the requirements of the student of biology the portion on comparative odontology has been expanded.

A Lecture
ON
MOVEABLE KIDNEY AND ITS TREATMENT.

Delivered at the West London Hospital

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GENTLEMEN,—Two different forms of moveable kidney are usually described: in the first variety the organ is freely mobile and forms a definite abdominal tumour, the term "floating kidney" being used for this condition; in the second variety the organ can be displaced only to a small extent and the affection is called "dislocated kidney." The symptoms of these two forms vary considerably and it is often found that they are more severe in the cases where the displacement of the kidney is least marked; in some cases of floating kidney the accidental detection of an abdominal tumour has alone drawn attention to the condition.

Moveable kidney was at one time considered to be a rare affection, but some German statistics, made after examination of a large number of patients in several hospitals, show that some degree of mobility of the kidney is present in about 1 in 250 patients, although in a great number of cases the patients do not suffer any inconvenience from this mobility. It is stated that the proportion of males to females affected is 60 to 87, but probably this ratio is much too high, since the condition is extremely rare in males. The right kidney is affected much more frequently than the left and the proportion is stated to be 11 to 1. The symptoms usually complained of are pain of a dragging nature in the loin and considerable tenderness over the kidney. In some cases there may be symptoms resembling those of renal colic, such as pain running down into the groin and into the genitals. This may be accompanied by increased frequency of micturition and sometimes even by alteration in the urine itself. These latter symptoms are met with more frequently in cases of dislocated kidney and are probably due to a kink of the ureter which produces obstruction of that duct. We also find other symptoms in connexion with this condition, such as severe digestive disturbances, especially pain and vomiting, these symptoms being called "gastric crises." In some cases these crises may resemble gall-stone colic and the gall-bladder has more than once been explored for attacks in reality due to floating kidney. Very severe attacks of migraine are also sometimes associated with floating kidney.

Some of these symptoms are due to the presence of a tumour in the abdomen, others to the dragging on adhesions to the duodenum, others to the interference with the flow of urine from the pelvis of the kidney, and others again may be explained by the effects of dragging on the renal plexus. On examining a case of floating kidney we shall find a large tumour in one lumbar region which can be moved in nearly every direction; it can sometimes be pushed over to the opposite side and can always be made to disappear under the ribs. One thing which is specially marked is the large size of the organ and one often hears a floating kidney described as being much enlarged. This enlargement, however, is only apparent, and when the kidney is exposed it will usually be found to be of the normal size; the apparent enlargement is accounted for by the fact that the abdominal parietes are grasped together with the kidney. In some cases no tumour can be detected at one examination, but is easily found at another time; in fact, the kidney seems to become supported for a time, possibly by the pressure of a full colon; in such a case by turning the patient on her face the kidney becomes dislodged and can be felt. In cases of dislocated kidney the organ may be felt by placing one hand under the loin and the other on the front of the abdomen just below the ribs while the patient is lying on her back, the lower end of the kidney will then be felt to slip up from between the fingers of the two hands; on making the patient sit up again the kidney descends and can again be felt.

Several theories have been advanced with regard to the causation of this condition, but at present we are more or less in ignorance. According to some the condition is due to the effects of wearing corsets which push down the liver and consequently the kidney also; its occurrence is also explained by absorption of the renal fat, but this explanation will not hold water, since in the living body the renal fat is semi-fluid. Congestion of the liver is also credited with causing the displacement in much the same way as tight-lacing. Kendal Franks has pointed out that a consideration of the anatomical relations and connexions of the kidney afford the most rational explanation of the condition. Now the anterior surface of the kidney is marked by the impressions of the organs immediately upon it and it has in consequence the shape of a double inclined plane. This shows that there are two forces acting on the kidney, one pressing it upwards and backwards and the other downwards and backwards. Franks therefore suggests that the kidney is kept in its proper position by the direct pressure backwards resulting from the united action of these two forces. On the right side the kidney is pressed on by the liver above and by the ascending colon below, while on the left side the stomach and the spleen exert pressure above and the descending colon below. Now in order to lose this support some forcible dislocation must occur. This will occur after an injury, such as a fall on the feet, a blow or a squeeze in the loin; it may also be caused by allowing the patient to sit up too soon after parturition. The occurrence of the so-called gastric crises associated with moveable kidney are explained by the connexions which exist between the kidney and the duodenum; consequently any traction on the latter structure by the descent of the kidney would be liable to cause kinking of the duodenum with consequent obstruction to the passage of food from the stomach. In support of this view it is pointed out that the gastric symptoms are not met with when the trouble is on the left side. On this side, however, the descent of the kidney may cause a kink in the splenic flexure of the colon by traction and intractable constipation may result.

With regard to the consequences of moveable kidney if left untreated the most important are the effects of kinking of the ureter producing hydronephrosis and atrophy of the kidney. Apart from this the patient's life may become almost unbearable either from continual pain, from frequent gastric crises, from uncontrollable irritability of the bladder, or from bowel trouble. In either of such cases some treatment is absolutely necessary.

TREATMENT.

The necessity for active treatment will of course depend upon the severity of the symptoms and also upon the condition of the kidney—i.e., whether floating or dislocated. In the former case, where little is complained of except the presence of a tumour, the application of a properly-fitting belt or truss will probably be all that is required. Unfortunately it is often very difficult to get a belt which is comfortable and patients sometimes find that wearing a belt is worse than the disease; this is especially the case when the kidney is tender to the touch. Some surgeons prefer a truss with a pad which presses the kidney up under the ribs. This is undoubtedly a good appliance when it can be borne.

In cases of floating kidney where neither a belt nor a truss can be worn, and in practically all cases of dislocated kidney, the question of operative interference must be considered. Two operations have been proposed—namely, nephrectomy and nephrorraphy. The first-named, however, is unnecessary and should not be undertaken except in a case of floating kidney with a distinct meso-nephron, in which the whole of the kidney substance has been destroyed by long-continued hydronephrosis. In all other cases the operation of nephrorraphy should be performed. Many different ways of performing this operation have been devised, but since the kidney is normally situated under cover of the ribs these methods in which the organ is attached below the last rib are not to be recommended. Among the various methods I may mention: (1) that where the kidney is exposed and the perirenal fat is freely disturbed, no stitches being employed but the wound being plugged to excite adhesions; (2) that where the kidney is attached to the lumbar wound by stitches which are passed through the kidney capsule and out of the skin, and which are withdrawn at the end of fourteen days; (3) that where the capsule is attached by means of buried silk or tendon sutures to the lumbar fascia (these are left in permanently); (4) that where the buried sutures are made to penetrate the kidney substance;

(5) that where the kidney is sutured to the last rib; and (6) that where the kidney is run up and fixed under the ribs by means of one of the tendons of the longissimus dorsi muscle (Vulliett's method). Besides these methods in which the kidney is exposed by a lumbar incision the organ may be reached by the transperitoneal route by an incision in the linea semilunaris and the kidney may then be stitched to the last rib. After a trial of all these methods except the last named I am inclined to recommend the method of Vulliett, since it answers most of the requirements of a nephrorraphy; thus the kidney is fixed in its normal position under cover of the ribs, the material used for suturing is unirritating and not quickly absorbed since it is a living tendon, and lastly the peritoneal cavity is not opened. A description of three cases in which this operation was performed will explain the method.

CASE 1.—A woman, aged twenty-two years, was sent to me by Mr. Cox of Watford. She had suffered for two years from severe dragging pain in the right loin in which region a tumour moveable in a direction upwards and downwards could be felt. The symptoms which gave the most trouble were reflex irritability of the bladder causing increased frequency of micturition; there was also severe pain in the back. As this was evidently a case of dislocated kidney and as the patient was very anxious for some relief she was admitted into the West London Hospital and on Aug. 5th, 1897, she was put under ether and an incision 4 in. in length was made just below and parallel to the last rib. After the kidney had been exposed and freed from its connexions a sponge was placed in this wound and the patient was turned more on her face. Another incision 1½ in. in length was then made just to the right of the spine, its lower end being on a level with the first lumbar vertebra; after dividing the deep fascia the tendon of the longissimus dorsi was exposed. A portion of this on the inner side about ½ in. in width was separated with a scalpel and then a finger was introduced underneath it. On pulling forcibly upon this it gave way at its attachment to the ribs above, providing a strip about 7 in. or 8 in. in length firmly attached below to the spine of the first lumbar vertebra. A probe was then passed from the dorsal into the lumbar wound between the transverse processes of the last and the eleventh dorsal vertebræ; and after incisions had been made in the capsule of the kidney at its upper and lower ends the separated tendon was brought down by means of a probe to the kidney and was passed beneath the whole length of the capsule. The tendon was then threaded again into the probe and passed back into the dorsal wound. On pulling upon it the kidney was made to run up under the ribs and it became firmly fixed in this position. The free end of the tendon was fixed by tying it in a reef knot to another portion of the longissimus dorsi. The lumbar wound was united by two layers of buried silk sutures and both incisions were completely closed without drainage by means of silkworm gut sutures. Both wounds healed by first intention and the patient left the hospital three weeks after the operation. The kidney has not given any further trouble and cannot now be felt.

CASE 2.—A woman, aged thirty years, had suffered from symptoms of floating kidney for ten years. The symptoms had commenced in consequence of a blow on the right side. A tumour could be felt in the right side which was freely moveable and the patient suffered from an incessant dragging and aching pain in the region of the kidney. An appliance had been tried without any benefit. She was admitted into the West London Hospital and on Sept. 28th, 1897, was put under ether and the kidney exposed by a lumbar incision. A distinct meso-nephron was found but the peritoneum was separated without being opened. A dorsal incision was then made and after isolating a portion of the longissimus dorsi and bringing it into the lumbar wound the capsule of the kidney was threaded with it and run up under the ribs in the same way as in the preceding case. The end of the tendon was sewn down in the wound instead of being tied. Both wounds were completely closed without drainage and healed by first intention, the patient leaving the hospital three weeks after the operation.

CASE 3.—A married woman, aged twenty-nine years, had suffered for some years from moveable kidney and at times was completely disabled by the pain. A distinct and freely moveable tumour could be felt. I saw the case with Dr. Berry of Watford and operated with his assistance on Nov. 13th, 1897. The operation was performed in the same way as in the two preceding cases, the only difficulty being that owing to the presence of a definite meso-nephron the peritoneum was opened in exposing the kidney; the rent in the peritoneum was sutured with fine silk and the operation completed in the usual way. There was no trouble from the peritoneal wound and the patient made an excellent recovery. I have recently heard from her medical attendant that she is now free from pain and that the kidney cannot be felt.

In these three cases, two of which were examples of floating kidney and the other of dislocated kidney, the results have been entirely satisfactory; with the other methods of operating my results have not been so good since the kidney could be felt after the operation in all the cases and in one there was a recurrence of the symptoms which necessitated a second operation. This was discouraging and made me hesitate to recommend a nephrorraphy since I could not promise that the condition would not recur. With Vulliett's method, however, I feel that one can offer every prospect of permanent relief and so I should urge the operation even in preference to the application of a belt, since its results are much more satisfactory and the procedure is practically devoid of risk.

A CASE IN WHICH THE CÆCUM AND THE ASCENDING AND TRANSVERSE COLON WERE REMOVED FOR MALIGNANT DISEASE; RECOVERY.

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Dr. F. J. SHEPHERD[1] of Montreal has published a list of 13 cases in which large portions of intestine varying from 10 ft. to 31½ in. had been removed by various operators. Apparently these all referred to the small intestine and were instructive from the evidence they afforded that good health and nutrition can be maintained after the removal of considerable proportions of the whole intestinal absorbing surface.

The large intestine does not lend itself so readily to resection as the small one, and, moreover, the cases in which removal of relatively large proportions would be really justifiable are not of frequent occurrence. Mr. Treves, in THE LANCET of Jan. 29th, 1898 (p. 276), has narrated a remarkable case in which he successfully removed the lower portion of the large intestine from the anus as high as the splenic flexure for a congenital condition of rectum which had produced a chronic obstruction, and the following case, in which the bowel resected for malignant disease extended from the termination of the ileum to the splenic flexure, is an additional proof that very extensive portions of the large intestine may be taken away with safety.

A woman, aged thirty-three years, unmarried, was admitted into the Leeds General Infirmary on July 31st, 1897, when she gave the following history. When six years old she had suffered from tuberculous hip disease. Eighteen months ago she began to have pain, which was generally diffused about the abdomen. Six months later attacks of vomiting and diarrhœa were added, but she sought no advice till two months before admission, when pain first became marked upon the right side. A fortnight later a swelling appeared upon that side of the abdomen and grew rapidly. The diarrhœa persisted but medical treatment checked the vomiting. She had lost much flesh during the last month. On examination a large defined tumour was found occupying the right side of the abdomen and extending just beyond the middle line. It moved downwards on respiration. If grasped by both hands movement up or down was very limited, but laterally and to the left it was remarkably free. Though it could be felt bi-manually in the loin it did not project so clearly behind as a kidney tumour usually does. The shape of the mass was an elongated oval, and its consistency varied at different parts, but in the main it was firm and resistant. Usually dull to percussion, there were times when it was resonant in places. Its examination gave no pain and never elicited visible or palpable contractions either in the lump or in other parts of the abdomen. On vaginal examination the swelling appeared to have no

[1] Brit. Med. Jour., Oct. 9th, 1897, p. 967.

connexion with the pelvic viscera. The tongue was slightly furred, the appetite was good, the motions were loose and contained no blood, and the urine was normal. Though the history as given above was very suggestive of an intestinal growth, yet some doubt was thought to exist as to the true nature of the tumour. An exploratory operation was therefore decided upon.

The Operation.—On Aug. 12th the patient was anæsthetised and the abdomen was opened by a 6 inch incision over the lump and to the outer side of the right linea semilunaris. The swelling was found to be situated in the large intestine and to be undoubtedly growth. It was as large as a medium-sized melon and much omentum was attached to it. Its connexions appeared so complicated that it was drawn outside the abdomen for investigation. The discovery was then

FIG. 1.

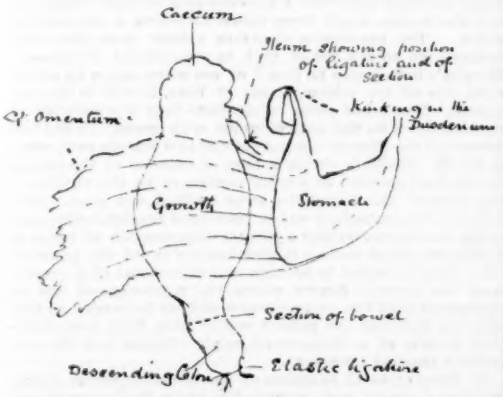


Diagram illustrating the condition met with on commencing operation.

made that the stomach was closely attached to its left side by what proved to be the upper portion of the great omentum, and it was seen that the omentum previously alluded to constituted its lower free portion and that the disease affected the transverse colon. At this point it is perhaps desirable, in order that the description of the operation may be more easily followed, to explain that the normal position of the ascending colon had been completely reversed as a result of this displacement of parts. A finger was now passed above and another below the free edges of the omentum which stretched between the stomach and the colon. They met behind, so this layer of tissue was secured by five or six silk ligatures and divided. A piece of india-rubber tubing was next passed through the mesocolon and tied tightly round the large bowel in the right iliac fossa some four inches below the growth, and the intestine was cut across above the ligature but well clear of the disease. Then the mesocolon was approached with considerable anxiety. It looked and felt like a large roll of fat as big as a flattened fist. It was dealt with from below upwards, portion after portion being ligatured with strong silk and divided. The tumour was now largely detached and hanging outside the wound, and its weight gradually drew down the cæcum from the right hypochondrium. So little of the ascending colon was left uninvolved by the growth that it was quite out of the question to unite two portions of large bowel. The ileum was therefore encircled with another piece of tubing about three inches from the ileo-cæcal valve and was divided close to its entrance into the large intestine. The remaining strands of ascending meso-colon and (?) mesentery were now ligatured and divided with as much consideration for the vitality of the cut end of the ileum as the unusual condition of parts permitted and the growth was removed. In the thick mass of the mesocolon many glands had been felt and when it was divided some were seen, but it was doubtful if they were diseased and it was not thought wise, by attempting to remove them, to enter upon a proceeding which could hardly be thorough and would add largely to the risks which the patient already had to face. The cut ends of the ileum and colon were now united by a Murphy's button. There was considerable strain upon the small bowel and a supporting suture tore through as it was being tightened, so reliance had to be placed upon the button alone. Lastly, the protecting sponges were drawn from the abdomen and iodoform gauze was packed down over the surface of the junction and brought out at the upper angle of the wound and the lower part of the incision was closed in layers. A dry dressing was applied. The operation lasted an hour and the patient was less seriously affected than I had expected, though one or two subcutaneous injections of brandy and strychnia were given towards the end.

The after-progress was not quite uneventful. For a few days there were a certain amount of vomiting and also hiccough which at first was very troublesome. Both symptoms disappeared after the bowels had been freely opened on the fifth day. Rectal feeding was kept up for several days but fluid nourishment by the mouth was commenced the day after the operation. For the first few days the stomach was seen in active movement forming a marked swelling below the thin parietes and later the small intestines in their peristaltic movements produced a lumpy surface of the now flattened abdomen. These movements were never painful and as the abdominal wall became fatter they were gradually lost sight of. The removal of the original gauze packing was attempted on the fifth day but its deeper portion stuck and did not finally separate till two days later. Within the next twenty-four hours fæces appeared in the discharge and for some days a large quantity escaped, but after lasting a week the fæcal fistula closed and never gave any more trouble. On the seventeenth day several ligatures and some sloughy tissue came away, and from that time the granulating track gradually diminished till on the twenty-seventh day, when the patient went to the Ida Convalescent Hospital, it was only packed with a small piece of gauze. The button was passed on the twenty-fourth day. When the patient went home on Oct. 30th there was no abdominal tenderness and nothing at all suspicious could be felt. The sinus admitted a probe for three-quarters of an inch, but it evidently extended deeper. Only a small amount of discharge persisted. The appetite was good and the bowels acted regularly. In appearance there was so great an improvement that on returning from a holiday I had passed her bed without recognising her. She must have gained considerably in weight and she expressed herself as feeling better than she had done for many months. Since her discharge she has attended as an out-patient and when last seen, on Feb. 11th, 1898, the sinus had soundly healed almost from the moment of the discharge of two silk ligatures a week before. Her weight has continued to increase slowly since observations were instituted and she is to all appearance perfectly recovered and in good health. Once recently she has had some slight intestinal derangement but it was only temporary and passed away without treatment. There is no reason to suppose that it was other than purely accidental and it is only mentioned now in view of the future possibilities of such a case.

Description of the specimen.—The upper section has been made through the ileum close to the ileo-cæcal valve and the lower section well to the right of the attachment of the great omentum to the transverse colon and consequently in the immediate neighbourhood of the splenic flexure. The bowel removed includes, therefore, the cæcum and vermiform appendix, the whole of the ascending colon, and the whole of the transverse colon as far as it is possible to ascertain. The specimen, after being kept for months in spirit, measures 10½ in. in length and 11 in. in circumference at the thickest part. The mass of the growth extends from 2½ in. to 3 in. from the extremity of the cæcum to within 2 in. from the end of the specimen, and its length is about 5½ in. Attached to the specimen is what appears to be the whole of the free part of the large omentum. It is adherent over the anterior surface of the intestine, and above the latter can be seen the line of section made just before the omentum passed to the stomach. The broad cut surface of the meso-colon can be recognised behind this. The specimen has been slit open on its posterior surface and the growth is seen to completely encircle the lumen. It infiltrates the walls of the gut but not its serous covering, and it has not produced any marked external puckering, though from the cross section of the growth it is evident that a good deal of contraction has taken place. The attached base varies in extent at different parts of the circumference from 2 in. to 3 in. in the longitudinal direction of the bowel. It is thickest posteriorly where its cross section measures from 1½ in. to 2 in. in different places. The

lumen of the bowel is completely filled by a large cauliflower-like mass which has sprouted both above and below the main growth. Its lower end extends for a couple of inches below the attached portion and tapers to a point. Fæces can only have filtered through the interstices of this

FIG. 2.

The specimen has been opened along its posterior surface. The cross section of the ileum can be seen at the right hand upper corner. The figure is about one fifth of the actual size of the specimen.

mass. The vermiform appendix was unfortunately cut across in removing the growth and has not been preserved. It was dilated as if from back pressure.

A microscopical examination of the tumour was made for me by Mr. Stott, the honorary pathologist to the infirmary, who reported that it was a columnar-celled epithelioma: "Throughout the section there were irregularly shaped spaces filled with columnar cells. In some of the spaces there was a gland lumen, in others the cells completely filled the spaces."

The position occupied by the tumour in this case was a very unusual one for a mass in the transverse colon. There can be no question that it reached that position in consequence of its weight. The late appearance of the tumour in the loin and its marked lateral mobility to the left are both consistent with this fact, and certain features of some interest that were observed during the progress of the case were associated with this altered position of the large gut. It is probable that the growth began in the transverse colon near to the hepatic flexure, which gradually became straightened out as the ascending colon was involved by its lateral extension. The contracting nature of the growth not only diminished the length of the affected segment, but gave it a much greater rigidity, and by crowding together the ascending and transverse mesocolons produced the greatly thickened pedicle which constituted one of the chief anxieties of the operation. A change in the normal relations of the various parts resulted from the gravitation of the bulky tumour, the rigid intestine rotating upon an antero-posterior axis so that the heavy end came to occupy the loin, whilst the cæcum was tilted above it and lay in contact with the under surface of the liver. Consequently upon this change in position of the transverse colon the stomach was pulled downwards and to the right until it lay beneath the umbilicus, and this altered position of the stomach, in its turn, would lead to kinking of the duodenum at the junction of its first and second parts, where the moveable portion joins the fixed. Most probably the obstruction which called forth the vigorous muscular contractions of the stomach so noticeable after the removal of the tumour arose in this way.

An attempt may be made to explain the hiccough which was so marked a feature on the first few days following operation upon anatomical grounds. It was probably occasioned by the ligatures which were applied to the great omentum along the great curvature of the stomach. These must have included many offsets from the sympathetic nerves on the right gastro-epiploic artery which originate in the solar plexus surrounding the cœliac axis. From this also the diaphragmatic sympathetic plexuses arise, and the one which accompanies the right diaphragmatic artery communicates with the phrenic nerve on the under surface of the diaphragm.[2]

There are two practical points connected with the operation which merit some attention. I prefer to use Mayo-Robson's bobbin wherever possible because I believe it gives greater security, and I hold Murphy's button in reserve for those cases where the condition of the patient makes it imperative to cut down the time spent on the operation to the smallest possible limit. It was for this reason that a Murphy's button was used in this case, but the tension upon the two ends and the depth of the upper one were such that I am convinced that an attempt to use the bobbin would have failed to secure a satisfactory union. The experience therefore gained from this case inclines me to the belief that in exceptional instances a Murphy's button may be found of use where union by suture upon one of the various forms of bone bobbin is impracticable. The other point is the plan that was adopted of packing down to the seat of union with gauze. In the last volume of the Transactions of the Clinical Society (vol. xxx., p. 89) Mr. Sheild describes a case of excision of the cæcum in which on account of similar doubts as to the vitality of the ends of the bowel the same method was used. The value of the proceeding was in both cases unmistakeable, and in my case by preventing a general extravasation of fæces or a localised fæcal abscess it undoubtedly saved the patient's life. Had I packed in another case of removal of a growth from the sigmoid flexure where the meso-sigmoid was so contracted that the proceedings could not be carried on outside the abdomen the patient would have been spared the long anxiety of a deep-seated pelvic abscess and its subsequent surgical treatment.

In those cases of resection of the bowel in which gauze-packing down to, and around, the union is employed any leakage taking place from imperfect suturing or from sloughing edges does so into a cavity communicating freely with the exterior and walled off from the general peritoneum by the adhesions induced around the packing. The deep granulating cavity which results rapidly dwindles to a sinus, and as its deeper parts cicatrize the closure of the fæcal fistula may be counted upon with considerable confidence. Gauze-packing will, I believe, prove to be of great value in preventing the serious and often fatal complications resulting from leakage after resection of the intestine, and as such complications constitute the chief danger after these operations a method which can do so much to avert them is worth a more extended application in suitable—i.e., in doubtful—cases.

In conclusion, I would gratefully acknowledge my indebtedness to the resident in charge, Dr. J. A. Clough, who by his skilful assistance at the operation and his subsequent attention to the patient contributed not a little to the successful issue of the case, whilst by his notes he has enabled me to record it.

Leeds.

[2] At the ganglion diaphragmaticum (Morris's Anatomy, p. 871).

THE YARROW HOME FOR CONVALESCENT CHILDREN, BROADSTAIRS.—This home, which has been established with the object of providing accommodation for children of the better classes, has issued a satisfactory report and balance-sheet for the year ending December, 1897, but it is pointed out that while the number of admissions during the summer months is satisfactory the applicants are fewer between October and April than during the rest of the year. The trustees wish it to be generally known that the institution is specially designed for a winter residence. "It is warmed and ventilated and its grounds have sheltered walks and shrubberies and it is in all respects as serviceable and advantageous for weak and ailing children in the winter as it is during the summer months." The income from investments amounted to £3024 5*s.* and the payments from the parents or friends of the children to £645 5*s.*, making the total sum received during the year £3669 10*s.* The total ordinary expenditure under all heads amounted to £2728 19*s.* 6*d.*

ON

PNEUMONIA FOLLOWING INJURIES TO THE CHEST AND THE POSSIBLE OCCURRENCE OF PULMONARY TUBERCULOSIS AS A SEQUENCE TO TRAUMA.

BY THOMAS HARRIS, M.D., F.R.C.P. LOND.,

PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY AND LECTURER ON DISEASES OF THE RESPIRATORY ORGANS IN OWENS COLLEGE.

THE most diverse views have been held and the most contrary statements made in reference to the relation of injuries of the chest to acute pneumonia, and these diverse opinions are, I believe, held by many at the present time as well as being evident in the writings of older authors. It is proposed in the present communication to consider first whether pneumonia does or does not follow as a consequence and is not a mere coincidence to direct injuries to the chest, and also whether in rare cases we may not have pulmonary tuberculosis supervene upon, and be directly traceable to, such injuries. It seems advisable to leave out of count penetrating wounds of the thorax and the action of various bodies gaining entrance to the lungs by the respiratory passages. Grisolle,[1] who was such a careful observer and wrote so cautiously, says that pneumonia sometimes follows the attempt to lift a heavy burden, that he has observed several such cases, and quotes Frank as having made a similar observation, but, he adds, nothing is rarer than to see pneumonia following contusions of the thorax whether there has or has not been fracture of the ribs. Hæmorrhage often may take place into the lung in such cases but rarely does pneumonia follow, and he summarises the question by saying that the pulmonary tissue has less tendency to inflame under the action of external violence than one would *a priori* suppose to be the case and that pneumonia developed by traumatic causes remains, in the majority of cases, circumscribed. Wunderlich,[2] on the contrary, says that he has often seen pneumonia beginning after severe contusions of the chest and running a typical course and he regards that cause as not an uncommon one. Jürgensen,[3] on the other hand, is just as positive in upholding the other view. He says no injury to the chest can produce a true croupous pneumonia and he somewhat sarcastically criticises the frequently quoted case of traumatic pneumonia related by Morgagni [4] by saying that it illustrates the lack of critical judgment with which observations are sometimes made. Coming to more recent times we find that, while Fagge [5] says that true pneumonia is not set up by local injuries to the chest, wounds to the lungs, or foreign bodies in the bronchi, Osler [6] briefly affirms that pneumonia follows traumatism with great frequency, more particularly injury to the chest. Sturges and Coupland [7] in a very able and cautious criticism of the relation of pneumonia to trauma summarise the question as follows: "Lobar pneumonia does undoubtedly sometimes follow injury, either immediately or within a short interval. In some instances this sequence is accidental, the inflammation not being caused by the injury but only brought to light through its agency. In others there is a real but indirect relationship; the pneumonia arises, that is to say, not from any harm done immediately to the lung, but from the nervous shock which bodily injury, whether of the chest or elsewhere, is apt to produce, and which, in common with fatigue, destitution, and alcoholic excess, predisposes the individual to such attacks. We have here, in fact, only a further illustration of the occurrence of true lobar pneumonia of definite duration and orderly course, not as a consequence of exposure, but as a real expression of some obscure nervous change."

It is evident that these last-named authors recognise that in some instances pneumonia does follow an injury, and that the sequence is not always an accidental one, but they consider that the relationship of the two is an indirect one and that the inflammation does not arise from any immediate injury to the lung. Litten,[8] on the other hand, in an article published in 1882 records several cases of pneumonia following directly on an injury to the chest and terms such pulmonary affections "contusions pneumonia," indicating clearly that he believes that they arise directly from damage to the lung. From perusal of his article it is evident that he considers the cases as associated with concussion of the lung. He calls attention to the fact that the injury in such cases often did not cause the patients to immediately cease work and that they often only sought hospital treatment some little time after the accident when secondary changes in the lungs in the shape of pneumonia began to develop. He also lays stress upon the fact that there may be no external signs of contusion evident in severe cases, even in some which end fatally. The case which specially called my attention to the subject was the following.

Injury to the chest, immediately followed by clinical signs of acute lobar pneumonia of the left side; death in from ten to eleven weeks afterwards; necropsy reveals thickened pleura over the lower lobe of the left side and an acute tuberculosis of both lungs, but much more advanced in the left lower lobe; old obsolescent tuberculous foci in various parts of the lungs. (From notes taken by the clinical clerk, Mr. E. W. Floyd).—A man, aged sixty-eight years, was brought to the Manchester Royal Infirmary on Sept. 25th, 1897, and was admitted under the care of my colleague, Mr. Southam. He stated that a short time previously when about to get into a tramcar he had been knocked down by the pole of a waggonette and had been trampled upon by the horses. No fracture of the ribs could be found and there was no evidence of contusion of the chest. As, however, he appeared to be ill, was suffering from shock, and was an old man, it was deemed prudent to admit him as an in-patient. On the evening of his admission (Sept. 25th) the temperature was 97·6° F., the following morning it was 98·4° and in the evening of that day (Sept. 26th) it rose to 102·2°. Evidence of pneumonia shortly afterwards appeared and as this showed no signs of resolution he was transferred to one of my beds on Oct. 13th, eighteen days after the accident. When I saw him I questioned him particularly as regards the nature of the accident and as to his health up to that time. He was a very intelligent man, gave a very clear account as to how the accident happened, and said that he was in his usual good health up to the time of the accident and had been engaged on the day of the accident in his usual occupation of an hydraulic packer. This employment, which is a laborious one, he had always followed since childhood and he had apparently never had any previous illness. He said that he had never had a medical man to attend him before during his whole life. He had been a very steady man, though not a total abstainer. When he came on to the medical side of the hospital his condition was as follows. He was propped up in bed on account of the difficulty of breathing. He was a man who looked older than his stated age (sixty-eight years). He had a well-marked arcus senilis; he was considerably emaciated. He had a troublesome cough and brought up about an ounce of thick mucopurulent expectoration during the day. Respirations were 30 per minute. Over the upper part of each lung behind there was good resonance, but marked dulness over the left base, extending as high as the middle of the interscapular region. There was no dulness in front but slightly impaired resonance over the left apex. The breath sounds were normal in front and behind except over the dull area at the left base, where tubular breathing and whispering pectoriloquy were marked. Over the upper part of the dull area there were a large number of medium-sized bubbles. The vocal fremitus was increased over the dull area. The pulse was 120 per minute, regular but weak, and easily compressible. The arteries were apparently atheromatous. The cardiac apex beat was not visible and could

[1] Grisolle: Traité de la Pneumonie, par A. Grisolle. Deuxième édition, Paris, 1864, p. 143.

[2] Wunderlich: Handbuch der Pathologie und Therapie, von Dr. C. A. Wunderlich. Dritter Band, zweite Auflage, S. 305.

[3] Jürgensen: Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. v., p. 30.

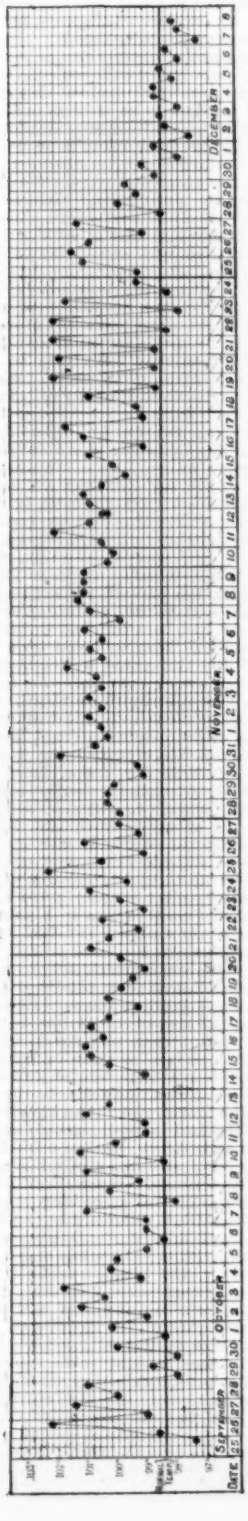
[4] Morgagni de Sedibus, &c., Lib. II., Ep. xx., 28.

[5] Fagge: Text-book of the Principles and Practice of Medicine, by the late Charles Hilton Fagge, M.D., F.R.C.P., and Philip Hy. Pye-Smith, M.D. Lond., F.R.S., third edition, vol. i., p. 996.

[6] Osler: The Principles and Practice of Medicine, by William Osler, M.D., F.R.C.P., 1892, p. 512.

[7] Sturges and Coupland: The Natural History and Relations of Pneumonia, by Octavius Sturges, M.D. Cantab., F.R.C.P., and Sidney Coupland, M.D., F.R.C.P. Lond., second edition, p. 327.

[8] Litten: Ueber die durch Contusion erzeugten Erkrankungen der Brustorgane, mit besonderer Berücksichtigung der "Contusions Pneumonie." Aus der Klinik der Herrn Geheimrath Professor Frerichs, von M. Litten, Zeitschrift für Klinische Medicin, Band v., 1882, p. 25.

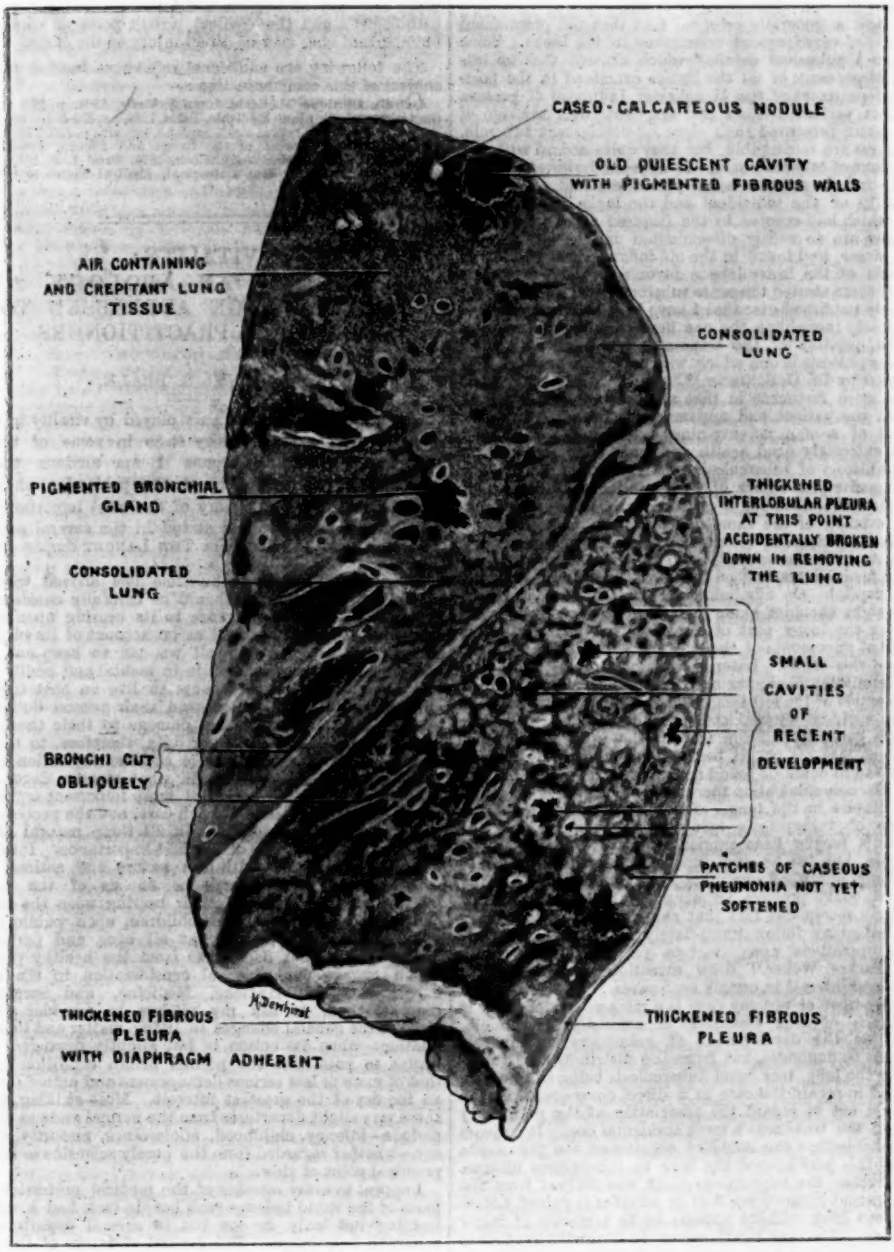


not be felt. There was no increase of the cardiac dulness and the heart-sounds were weak but unaccompanied by any murmurs. The tongue was covered by a thick white fur and the bowels were somewhat constipated. The urine was of specific gravity 1020, acid, contained neither albumin nor sugar, but deposited urates on standing. The sputum was examined for tubercle bacilli with negative results. The patient remained much in the same condition as regards the pulmonary physical signs, but gradually got weaker. On Nov. 20th there was a note that the sputum was again examined for tubercle bacilli, but with negative results. He gradually became weaker, no improvement took place in the condition of the lung, the urine from being free from albumin showed a trace of that substance on several occasions, and he died on Dec. 8th, between ten and eleven weeks after the accident, apparently from simple exhaustion.

During the last two weeks of his illness he was too ill for any careful examination to be made as regards the condition of the chest. The record of temperature is shown on the accompanying chart. It will be noted that in the evening of the day following the accident a rise of temperature to 102·2° was recorded and that during the next five weeks it was an irregular type of temperature, varying usually between 99° and 100° and occasionally reaching 102°. The type of temperature is not the one most usually seen in acute pneumonia, but such an irregular temperature is probably far from being an uncommon type when pneumonia attacks people advanced in years. After the first five weeks for about a fortnight the temperature became of a more continuous type, being generally between 100° and 101°; then this period was followed for about a week by a distinctly intermittent temperature, the evening record being 102°, whilst in the morning it was normal. During the last week of life there was absolutely no rise of temperature whatsoever, which is a remarkable fact in view of what was found at the post-mortem examination.

The necropsy was made on Dec. 9th, 1897, by Dr. Kelynack, the pathological registrar of the infirmary, and the following is an abstract from the report. The body was extremely anæmic and there was marked general wasting. The skin was harsh and wrinkled. There was no sign of fracture of the ribs or injury to the pleura. The left pleura presented extensive pleurisy of old date, especially over the lower lobe of the lung. There were old pleuritic adhesions both over the base of the lung and at the left apex, over the former part being much more general and extensive than over the latter. The right pleura presented indications of acute fibrinous pleurisy, evidently of tuberculous origin, as miliary tubercles could be seen at various parts of the pleura. The weight of the right lung was 1 lb. 11 oz. and that of the left 1 lb. 12 oz. The left lung (see illustration) was almost entirely consolidated throughout its lower lobe by disseminated caseous tuberculous pneumonia. Many of the patches were softening and forming small cavities. At the upper part of the left lower lobe the consolidation appeared somewhat firm as though of old standing. The whole of the upper lobe presented patchy pneumonic consolidation, some of which was certainly tuberculous; but as regards some of the other foci no definite statement could be made as to whether they were simple inflammatory or tuberculous lesions. The consolidated areas in the upper lobe had a greyish white granular appearance, but there was no evident softening or formation of cavities throughout the upper lobe with the exception that in the extreme apex there was a small cavity evidently of very old standing. The apex of the left lung was firmly adherent to the chest wall and on separating the adhesions the above-mentioned old tuberculous cavity was opened into about 1 in. by ½ in. in diameter. The walls of this cavity were extremely thickened and pigmented. At the lower part of this cavity in the substance of the lung was a caseo-calcareous deposit encircled by firm, hard, dense pigmented tissue. The pleura over the lower lobe, as previously stated, was much thickened and of a firm fibrous nature, and between the upper and lower lobes there was firm adhesion (see illustration). With regard to the right lung, there was slight thickening of the pleura over the apex, which apex presented an old caseous and fibrous focus. There were numerous areas of acute tuberculous consolidation throughout this lung, less marked at the base than in the upper lobe, but all were of recent development and less advanced than in the lower lobe of the left organ. The pleura over the lung was studded with miliary tubercles and similar lesions could be seen throughout the lung. The bronchial glands were deeply pigmented and apparently tuberculous. The impression conveyed from an examination of the lungs was that there had been old healed phthisis in the upper lobe of both lungs, which had perfectly healed, and which showed no signs of activity; that recently an acute tuberculosis had developed throughout both lungs, and that this acute tuberculosis presented no relation whatsoever to the old patches of healed phthisis; it did not appear, so far as could be determined from the pathological appearances, that absorption of the tuberculous virus had taken place from the old foci, or that those old foci had been the cause of the recent eruption of tubercle. The thickened pleura over the lower part of the lung was probably the remains of the attack of acute simple pleuro-pneumonia with which his illness had commenced immediately after the accident. Portions of the lung taken from the lower part of the upper lobe and from the lower lobe were examined microscopically and were found to present the usual typical tuberculous features. The giant cells were very marked and numerous. All the other organs were examined, but no tubercles were found in other parts and there was no other disease found than that mentioned with the exception that the vessels of the brain were slightly atheromatous and the kidneys, the united weight of which was 6 oz., were slightly granular and of increased consistency, and the cortex of these organs was slightly diminished.

Considering the history of the case together with the pathological appearances, the inference appears to be justified that we had to do with a pneumonia of the left lower lobe consequent upon an injury to the chest and that the pneumonia had a few weeks before death become infected by the virus of tubercle and an acute tuberculosis had resulted, which acute tuberculosis was most marked and most advanced in the lower lobe of the left side and had probably originated there. As to the source whence the tuberculous


CASEO-CALCAREOUS NODULE
OLD QUIESCENT CAVITY WITH PIGMENTED FIBROUS WALLS
AIR CONTAINING AND CREPITANT LUNG TISSUE
CONSOLIDATED LUNG
PIGMENTED BRONCHIAL GLAND
THICKENED INTERLOBULAR PLEURA AT THIS POINT ACCIDENTALLY BROKEN DOWN IN REMOVING THE LUNG
CONSOLIDATED LUNG
SMALL CAVITIES OF RECENT DEVELOPMENT
BRONCHI CUT OBLIQUELY
PATCHES OF CASEOUS PNEUMONIA NOT YET SOFTENED
THICKENED FIBROUS PLEURA WITH DIAPHRAGM ADHERENT
THICKENED FIBROUS PLEURA

Section through the left lung showing the thickened pleura over the lower lobe and the tuberculous or caseous pneumonia more advanced in the lower than the upper lobe.

virus was derived there may be a difference of opinion. From the fact that there were several patches of healed tubercle it is evident that we had to deal with a subject who was predisposed to tuberculous disease and it is possible that the virus had been absorbed from the old tuberculous foci and had been the cause of the acute eruption of tuberculosis which was the immediate cause of death.

It is now a generally accepted fact that old obsolescent tubercle is of very frequent occurrence in the lungs. Some years ago I published details [9] which showed that no less than 38·84 per cent. of all the bodies examined in the post-mortem department of the Manchester Infirmary of persons dying from various diseases and accidents over the age of twenty years presented such signs of obsolescent tubercle. Such figures are remarkable, but they quite accord with the observations of other authors. It appears, however, equally probable that the original acute pneumonia had so lowered the vitality of the individual and the lungs that tubercle bacilli, which had entered in the inspired air and which we now know are so widely disseminated in the air and in various places, had found in the old inflamed and unresolved pneumonia of the lower lobe a favourable nidus and that they had there started the acute tuberculosis.

The only published case that I have been able to meet with at all closely resembling the one here recorded and bearing upon the question of the traumatic origin of pulmonary tubercular phthisis is one which was published on Nov. 15th of last year by Dr. O. Schrader,[10] but in that case the result was the more fortunate in that at the time the case was published the patient had apparently recovered. The case was that of a man, twenty-nine years of age, who had enjoyed extremely good health and came of a very healthy stock, no history of tuberculosis existing in the family. The patient received an injury of such a serious nature that he remained unconscious for a quarter of an hour afterwards. On the evening of the same day he began to feel ill and although he attempted to work on the following day he had to cease work in consequence of feeling unwell with headache and feverishness and on the next day he was admitted to the hospital. On admission an excoriation was evident over the right shoulder blade and there were a few physical signs over the lower part of the chest on that side. The diagnosis of pneumonia of the lower and middle lobes of the right side was made. Later the temperature became of a more intermittent character and the physical signs extended over the whole of the left lung. The sputum about six weeks after the accident showed the presence of tubercle bacilli. Later the general condition improved, weight was gained, the patient lost his cough, became free from fever, and no tubercle bacilli could be found in any expectoration. At the date of the communication there were no signs to be found of any disease in the lung. Dr. Schrader considered the case one of tuberculosis resulting from an injury, the tuberculosis having been probably preceded by a simple pneumonia, but, as he says, up to that time there could not be found published any proof that a trauma in a healthy individual could produce pulmonary tuberculosis. It has long been a recognised fact that acute disseminated miliary tuberculosis may follow immediately upon injuries of, and surgical operations upon, various parts. Quite recently Dr. F. Parkes Weber [11] drew attention to the possible medico-legal interest in certain such cases.

As to whether or not my case is a mere coincidence or is an instance of true traumatic or contusion pneumonia, followed by the development of pulmonary tuberculosis one cannot be dogmatic, but from the distribution of tuberculosis in the lung, true basal tuberculosis being so rare, one is inclined to regard the case as a direct consequence of the injury and not to regard the association of the pulmonary lesion and the trauma as a mere accidental one. It appears quite probable that the accident occasioned the pneumonia and that this predisposed the lung to tuberculous disease. As to whether the tuberculous virus was derived from the old obsolescent tuberculous foci or whether it gained access to the lungs from without appears to be a matter of minor importance. The case would appear to illustrate the fact to which attention has been called by Delépine [12] and others, that we must consider the condition of the individual and of the lung in reference to the development of tuberculosis in the lungs—that we have to regard the pre-tuberculous state of the organ in reference to the pathogenesis of pulmonary phthisis. Many causes may be predisposing or exciting ones for the development of tuberculosis in the lungs and one of the most uncommon, but yet from the pathologist's and the medical jurist's point of view not an unimportant one, may be direct injury to the chest.

The following are additional references bearing upon the subject of this communication :—

Andral: Clinique Médicale, tome 3, Paris, 1834, p. 293. Béhier: Conférences de Clinique Médicale, Paris, 1864, pp. 200–208. Dr. Thomas Barlow, quoted by Sturges and Coupland, loc. cit., p. 326. Wilson Fox: A Treatise on Diseases of the Lungs and Pleura, London, 1891. Lebert: Klinik der Brustkrankheiten, 1874, Band 1, S. 557. Reports of Hospital Practice: Guy's Hospital, Medical Times and Gazette, 1867, vol. 1., 443.

Manchester.

[9] The Curability of Phthisis, Brit. Med. Jour., Dec. 21st, 1889.

[10] Schrader: Ein Fall von Traumatischer Lungen-tuberculose, von Dr. O. Schrader, Berliner Klinische Wochenschrift, November 15, 1897, S. 1001.

[11] THE LANCET, Aug. 7th, 1897, p. 306.

[12] Delépine: Pre-tubercular Lesions in Phthisis Pulmonalis, Transactions of the Seventh International Congress of Hygiene and Demography, p. 222.

VITALITY:
AN APPEAL, AN APOLOGY, AND A CHALLENGE ADDRESSED TO BROTHER PRACTITIONERS.

BY
LIONEL S. BEALE.

BEFORE considering the part played by vitality in various departures from the healthy state in some of the most important tissues and organs I am anxious that the attention of the members of the profession should be accorded to a short summary of the most important of the conclusions arrived at and stated in the several papers on Vitality already published in THE LANCET during the past two years.

It seems to me that the time has arrived when this most important question should be carefully considered by every one of us with reference to its bearing upon medical and surgical practice as well as on account of its surpassing general interest. We do all we can to keep our fellow creatures at every period of life in mental and bodily health and have to advise them how to live so that they may efficiently and happily discharge their several duties with as little wear and tear and damage to their tissues and organs as possible. It is our duty, therefore, to ascertain and explain how natural vigour and healthy action may be prolonged into old age and in what manner degenerative changes and impaired action of most important organs may be prevented or retarded in each case, and the necessary end as far as possible postponed. In all these natural changes vital action, Vitality, is of the first importance. Indeed, all questions connected with the nature and actions of all things living must always be to us of the greatest interest in consequence of their bearing upon the training and general management of children, upon public health, upon the working capacity at all ages, and particularly upon the numerous departures from the healthy condition which engage our practical consideration in the several departments of Hygiene, Medicine, and Surgery. I propose, then, to ask my readers to consider with me some of the general changes in living matter and its altered relations when its action is but slightly deranged and it begins to pass from the normal health condition towards that of more or less serious derangement and actual disease—an inquiry of the greatest interest. Most striking, too, are those very slight departures from the normal state at different periods—infancy, childhood, adolescence, maturity, and old age—whether regarded from the purely scientific or from the practical point of view.

I appeal to every member of the medical profession in all parts of the world because each has, in fact, had a scientific training not only in one but in several departments of scientific knowledge. The general structure of the higher organisms and of man as well as of the simpler living things and plants, the minute structure of the several tissues and organs, the physical and chemical phenomena of living things, the phenomena which distinguish the living state from every other state in which matter is known to exist, the minute changes occurring in various departures from health, and the exact points in which diseased tissues and organs differ from those which are healthy are of the greatest

interest. Without such knowledge, which is continually advancing, we should not understand pathological changes and should not be in a position to be of the greatest service to our patients.

Many medical men have been skilful scientific observers, and indeed some have attained equal eminence in science and practice, and recently our profession has been honoured by one of its most distinguished members, like more than one predecessor, being elected President of the Royal Society and of the British Association for the Advancement of Science, but Lord Lister is the very first practitioner upon whom a peerage has been conferred.

Many thoughtful men, led away by the plausible statements so frequently repeated during the last thirty years, have accepted the purely physical and chemical doctrines concerning life and all living nature, notwithstanding the conviction, at least in some cases, that these views were incompatible with many facts of general interest and observation, and not in accordance with the phenomena they themselves have observed in others or with certain changes which they knew were proceeding in their own organisms. Fully conscious of the complexity of the whole question they scarcely dared to express an opinion, and thus involuntarily were included among the supporters of views to which, though popular and fashionable, they were entirely opposed. But at last the chemical and mechanical doctrines of life seem to be really giving place to more rational views based, not upon so-called "working hypotheses" and "tendencies of thought," but upon facts of observation and things to be seen and studied by all who can use the microscope, and which are in accordance with our general knowledge derived from long association with and investigation of the highest living forms in nature living under various conditions.

It is now more than forty years since the results of many observations with high magnifying powers and experiments led me to conclude that every living thing and everything that had lived in time past was absolutely dependent for existence upon the operation of *vitality*—a power manifested by living matter only, and restricted to organisms in or upon the earth or water or in the lower strata of the air.

In many communications I showed that although the real living matter was most inconspicuous and was often unrecognised altogether, it was by far the most important of the various anatomical constituents of all tissues and organs of living things at every period of life. I referred to its powers of growth, multiplication, and action, and drew attention to the important points in which this living matter absolutely differed from matter in every other known state or condition; and I claimed that in all cases vital action was due to these powers distinct from all ordinary forces and properties of ordinary matter, and capable of overcoming these and preventing, for the time being, their operation.

So far from the existence of vitality having been disproved, the more minutely investigation has been carried the stronger has become the evidence in its favour. Probably very few scientific men would now dispute or deny its operation upon the matter with which it is temporarily associated. All who rely upon evidence must feel satisfied that the more recent discoveries as to the constitution of our sun and the planets as well as the fixed stars, render it most improbable that life exists in these or other orbs. By increased knowledge the reason has become convinced that vitality, as we know it, is thus limited, and in its nature far removed from any of the tremendous physical phenomena which have been in operation during millions of years millions of miles away from us.

The exact nature of the purely vital phenomena and the various circumstances under which they are modified in nature and particularly in our own fellow creatures in various departures from the normal condition are questions which are constantly presenting themselves to our minds for consideration, although our longing to know more cannot as yet be satisfied. But, on the other hand, it is impossible to accept the assurance that all the phenomena of living things, so very different from any characteristics of the non-living, are due to physical and chemical actions only. The movements of clear structureless living matter have for many years been ascribed to chemical change, but no one among the advocates of this doctrine has attempted to explain how, when, or why the chemical change begins or by what means the special chemical changes characteristic of different kinds of living matter have been established. The view that vital action somehow originates in, or is a modified form of, any of the ordinary forces or properties of non living matter s contradicted by the fact that these are *actually overcome and are in abeyance in matter which exhibits vital action as long as the living state of the matter continues.*

The evidence is now so conclusive that I venture to think that most thoughtful practitioners are already convinced that we, and all for whom we are responsible in sickness, are far removed from the category of machines with mechanical contrivances which men design and make, the action of which they superintend and regulate, and the damaged or worn part of which can be repaired or replaced. All living things grow from the structureless, and not only are all their tissues formed from the structureless, but it is very doubtful whether there is an action which is not directly or indirectly dependent upon the vital changes in structureless living matter. We are not machines; we are not governed by, or the results of, chemical and mechanical changes. Our life is not the mere outcome of chemical and mechanical forces. The facts of observation and the results of experiment not only at this time prove that it is not in accordance with reason to assert that man is a machine and all his actions are mechanical, but that no one acquainted with the well-known facts and guided by reason could have assented to this proposition at any time during the past fifty years. Man is a being whose living matter is endowed in a special manner with powers peculiar to man alone, his living matter, as we know, being influenced by many chemical substances in a manner different from that in which the living matter of other creatures is influenced by the same substances. The differences in action are not to be accounted for by any physical or chemical properties of the substances which can be obtained from the living matter or bioplasm of man's organism, and those who tell us that such and such things are taken from organisms that were *alive* must bear in mind the fact that the matter they examine and analyse is but the matter that *was* living, and that the things they obtain are but those that result at the moment of or soon after death. To chemically analyse living matter is at present impossible.

We who are engaged in studying the living and in trying to promote and maintain healthy vital changes in every part and organ of the living body, cannot possibly accept the assertions, however often repeated, with regard to the properties and composition of lifeless matter as evidence of the nature of the changes which take place in the matter in its living state. Neither must we allow ourselves to be influenced by arguments based upon the composition and characters of portions of tissues and parts of organisms which are not in a living state, even while the actual living matter, which is less conspicuous but most important, exists.

No wonder that during ages past practitioners who held a high scientific position should have been much interested in anything that seemed likely to throw any light upon that greatest of all scientific problems—the nature, and origin, and destination of life—and particularly of those wonderful phenomena which have been watched with intense interest from the first moment of infant life onwards through childhood, maturity, old age, to death. For who can study even the ordinary actions of the limbs as they slowly become perfected without feeling convinced that such actions are indeed widely separated from any mechanical or other movements in non-living matter—that, indeed, there is no analogy whatever between any parts of living beings and any machines, apparatus or laboratories?

And now let me ask if there is one among us who, having thought over this question of the nature of life, is satisfied with the strange doctrines enunciated in many text-books at this time and the evidence advanced in their support?—anyone who receives the arbitrary dicta authoritatively proclaimed as the teachings of science and reason that we and all our actions, thoughts, hopes, and fears are the results of physical and chemical actions in the material particles of which our bodies are composed?

The physicist and chemist, living amongst and constantly improving instruments and methods of examination, and taking part in investigations of wonderful delicacy and ever approaching nearer and nearer to what they look for as perfection and positive knowledge, naturally look forward to the discovery in living things of some mechanical and chemical microcosm capable of disintegrating, arranging and re-arranging—of analytical and synthetical operations akin to those pursued in their laboratories where with marvellous skill substances that have been united for millions and millions of years are separated from one another and made to yield up matters of wonderful properties which have been

unknown and unsuspected until now. Physicists and chemists look forward with confidence to the synthesis in the laboratory of elements which according to authority combined in nature for the first time, only a few millions of years ago and thus think to acquire a knowledge of the manner in which the first particle of living matter originated and began to live and move and grow and form, to multiply, mature, grow old (?) and die. But in not one of the millions of millions of the successors of that primitive living particle has anything like a laboratory been discovered. However, according to prophecy and the so-called tendency of thought, the naturalist of the future is to discover much that the existing naturalist of to-day fails to discern. But, alas, up to the present moment, notwithstanding our increased and ever-increasing knowledge, living nature still retains many secrets, and no physicist or chemist has yet succeeded in discovering the physical and chemical principles by which even the apparently simple vital movements, to say nothing of the evolution of heat, light, and electricity, by particles of clear, colourless, structureless, living matter are to be explained. So far no substance has been discovered or produced in the laboratory, that lives or moves and grows and multiplies and dies like every particle of matter that lives or that has lived in nature.

As regards the great questions bearing on the nature of life which have been considered by some of the greatest intellects in every generation during the past 2000 years, the latest appeals have been and must continue to be made to ever-progressing science, and it is certain that with the ever-accumulating results of investigation, of new facts, and demonstrations, reason will at last be satisfied. But during recent years thought has been overwhelmed and almost stifled by what purports to be scientific authority—authority based only on confident assertions, arbitrary dogmas and strange conjectures often advanced by highly confident people who seem to have been more successful in gaining the acclaims of the public than the confidence of the thoughtful. And for a long time past not a few reasons, facts, and arguments tending to establish conclusions of a very different kind have been ignored and not unfrequently their advocates intimidated and silenced by self-proclaimed authority.

The following are some of the doctrines still maintained and taught, although they as well as the conclusions involved in their acceptance have been shown over and over again to be opposed to scientific facts and observations and to be contrary to reason. It is improbable that any one of them will ever be established or will in future receive the support of those who have studied the structure and vital phenomena of any organism in the living state.

The living and the non-living are one.

All movements in living things are physical and are due to chemical change.

Life is made up of physical and chemical action.

Vital mechanics—vital chemistry.

Man is a machine and all his actions are mechanical.

The sun is the source of life.

Suns resolve themselves into living things.

Living things are built by the sun.

The sun forms hearts and brains and tissues and organs.

The living comes direct from the non-living.

Plants are nearer to the non-living than animals.

All life came from matter, is due to the ordinary properties of matter, and obeys mechanical laws.

Living "protoplasm" is a proteid and obeys ordinary chemical laws.

The "growth" of living and lifeless takes place in the same way.

Aggregation is a form of "growth."

Crystals *grow*.

(To be concluded.)

ROYAL MICROSCOPICAL SOCIETY.—The next meeting of this society will be held on Wednesday, April 20th, at 8 P.M. precisely, when Mr. Henry Morland, F.C.S., will read a paper on Some Organic Substances of High Refractivity Available for Mounting Specimens for Examination under the Microscope, and Mr. E. B. Stringer one on Instantaneous Photomicrography. At 7.30 there will be an exhibition of Diatoms by Mr. Morland.

NOTES ON A CASE OF PORRO-TAIT'S OPERATION.

BY ALBERT E. MORISON, M.B., F.R.C.S. EDIN.,
HONORARY SURGEON TO THE HARTLEPOOLS HOSPITAL.

ON March 20th, 1897, I was asked by Mr. Moffat Young of West Hartlepool to see the case which I am about to record. The patient was a little spare woman, 4 ft. 2 in. in height, but with no apparent deformity of any of her bones. She was twenty-four years of age. There was a history of rickets in childhood. She was three years old before she could walk. At the age of fourteen years (ten years ago) she came under my care suffering from disease of the left hip-joint and she was confined to bed for six months. This, however, had left no deformity of her limb. Mr. Moffat Young first saw her at 4 P.M. on March 20th. Labour began at 9 A.M., but the pains were not severe. The "waters broke" at 3 P.M. As the presenting head made no progress Mr. Moffat Young examined her carefully and found that the lateral diameters of the pelvis were very much diminished. He concluded that some operative interference was necessary and he asked me to see the patient with him and we met at 9 P.M. The patient had been in labour twelve hours and was getting exhausted. The uterus was firmly contracted, but the pains were feeble. On making a vaginal examination the sacro-sub-pubic conjugate was found to be apparently normal, but the lateral diameter of the pelvis was much contracted, only admitting two fingers. The head could be felt high above the pelvic brim. I agreed with Mr. Moffat Young's opinion that there was no chance of delivering the child per vias naturales and the following operation was performed. The patient was chloroformed in bed and when under the anæsthetic she was lifted on to the table. Her abdomen was cleansed with soft soap, turpentine, and ether and purified with 1 in 500 corrosive sublimate lotion. An incision was made in the middle line from the umbilicus to about 1 in. above the pubes and the peritoneal cavity was opened. This wound being too small to allow of the uterus being lifted out of the abdomen was enlarged upwards with scissors. The uterus was then tilted out of the abdomen and a large sponge was packed behind it over the intestines, which were consequently not exposed during the operation. A piece of drainage-tube was passed round the uterus low down and tightened to form an elastic ligature, care being taken to avoid the bladder. The uterus was then opened close to the fundus by a longitudinal incision in the middle line, the fœtus extracted, the cord clamped with two pairs of forceps and divided, and the child handed to a nurse. The uterus was next cut away above the elastic ligature, traction being exerted on the tubing whilst this was being done. The ligature was finally tied in a double knot and a Tait's pedicle pin was passed through the stump. The exposed mucous membrane of the cervix was swabbed with pure carbolic acid and dusted with iodoform and boracic acid. Douglas's pouch was sponged out and the parietal incision was closed with silk sutures, the stump of the uterus being fixed in the lower angle. The wound was dressed with cyanide gauze and wood-wool. The patient was put back to bed in twenty-five minutes. She did not lose more than half an ounce of blood and looked well.

The subsequent history of the case was as follows. Vomiting was troublesome for twenty-four hours. The patient's temperature attained its highest point—99° F.—on the first evening after the operation. The stitches were removed on the eighth day. The pedicle sloughed off on the tenth day and the patient was allowed to get up on the twenty-first day. The child was healthy when born and is now alive and well. The mother did not suckle the child.

Although the operation was performed under disadvantageous surroundings and circumstances the case pursued an entirely satisfactory course throughout. The patient had to be treated in one room of a small cottage hardly large enough to contain an ordinary operating table. The only light available was that supplied by a small paraffin lamp, and it proved to be so feeble an illuminant that Mr. Moffat Young had to hold the lamp close to the patient's abdomen with one hand whilst he administered the anæsthetic with the other,

so that to his skilful assistance the result is largely due. My reason for choosing Lawson Tait's modification of Porro's operation on a delicate woman in the surroundings mentioned was the ease and rapidity with which it can be performed. To entirely draw out the uterus a larger incision in the abdominal wall is required, but this is more than compensated for by the ease with which the elastic ligature can be applied before the uterus is incised, thus reducing the loss of blood to a minimum and preventing the soiling of the peritoneal cavity.

Hartlepool.

UTERUS UNICORNIS.

BY HEYWOOD SMITH, M.A., M.D. OXON.

CASES of true uterus unicornis are so rare that no apology is needed for relating such a case and drawing attention to some features that seem common to most and pointing out some characteristics that seem to make this case a very rare specimen, if not unique.

The patient, who was thirty-three years of age, had been married for four years, and had one child two and a half years old, was brought to me by her husband on Oct. 6th, 1896. The catamenia began at the age of twelve years. They were regular, lasting from four to five days, but lately they had been accompanied by pain in the back and in the right inguinal region. She had suffered from backache for the past twelve months and this had been more severe since August. The pain was worse at the periods. Micturition had been frequent for six months. The pain in the right groin was now constant. She could not walk well and she was getting worse. On vaginal examination the os uteri was found to be rather patent; the canal was soft and slightly irregular. The uterine sound passed in the natural direction for three and a half inches. Behind the uterus and slightly to the left of the median line was felt on conjoint rectal and vaginal examination a body rather firm (? cystic), immoveable (? adherent), and tender. From the dragging pain on the right side a diagnosis was made of the right ovary prolapsed and the left enlarged, inflamed, and adherent. The patient had consulted me twelve years previously for dysmenorrhœa when there were some anteflexion and stenosis. The canal was dilated and she wore a glass stem and a small Hodge's pessary for some months with great benefit.

I sent her to Mr. Bland Sutton for an opinion and he agreed with me that there was an inflamed ovary, probably adherent, and he advised an operation. I therefore on Oct. 13th operated, Mr. Bland Sutton kindly assisting. On opening the abdomen I found an elongated body and brought it to the surface; it looked like the uterus, but the fundus, instead of being broad and flattened antero-posteriorly, was rounded at the top and on the left side, which was quite smooth down to the bottom of the pelvis. On the right the oviduct and the ovary were traced out and brought to the surface, when the ovary was found to be a little larger than normal with the distal one-third distended with blood and a scar at its extremity blood-stained; there were several small cysts, but nothing abnormal. As she had asked me, if possible, to leave one ovary so as not to preclude the possibility of her having another child, and as she apparently possessed only one, I decided to leave it. There was a thickened and palish band partly surrounding the uterus at the junction of the cervix and body, slightly irregular. We then proceeded to search for the other ovary but failed to find it. At the bottom of Douglas's pouch there was a flattened irregular patch, but not marked enough to have been that organ. We then examined for the tumour we had felt on the left posterior aspect of the pelvis, and Mr. Sutton, recognising the fact that uterus unicornis is usually associated with abnormality of the kidney on the same side as the absence of the uterine appendages, at length satisfied himself that it was the kidney, of normal size, two-thirds of it lying below the brim of the pelvis; this I also verified. The right kidney was normally situated. The wound was then closed in three stages. The patient made a good recovery and lost her pain.

I would draw attention to the special features in this case, first of all remarking that the developed side was the right; this has been the case in all the recorded cases which I have looked into. An unusual feature was that there were no rudimentary structures on the left side, no broad ligament, no round ligament, no ovary, no oviduct, but only smooth peritoneum. The left kidney existed and was apparently normal in size and consistency, but greatly displaced. No attempt was made to trace the ureter. The uterine cavity was an inch longer than normal, and the patient had had a child. It must be remembered that the specimen was not removed and lying on a plate for careful examination, as most of the former specimens have been, but we were inspecting a living body during the course of an operation and therefore were not justified in making a prolonged examination.

With the aid of J. S. Billing's most valuable catalogue (I could not find the subject in Neale's "Digest") I searched for records of similar cases and have appended a few short abstracts to make this observation more complete, thinking it may be of use for further reference.

Mr. Nunn,[1] of the Middlesex Hospital, showed on Feb. 1st, 1859, a specimen from the dissecting-room from a subject, aged thirty-five years, of uterus unicornis. In this case it was the left side which was undeveloped. But in this case, though the oviduct was undeveloped, yet its fimbriæ were present and the ovary was discovered at the brim of the pelvis. There was also a broad ligament on that side.

Sir W. Turner,[2] Professor of Anatomy in the University of Edinburgh, has written an article on uterus unicornis. The malformation was discovered in the body of a woman, past middle life, in the dissecting-room. The uterus was smaller than normal, its length being 1½ in. and its breadth 1¼ in. The left side was rounded and on the right only were the broad and round ligaments, the ovary and oviduct. On the left side a band passed which seemed to represent the left uterine cornu atrophied. There was a left ovary attached to the end of this band, small, thin, surfaces flat, with no trace of scars, and there was a short oviduct detached from the left cornu. The cavity of the right cornu measured 2 in. The left kidney was absent, but the left suprarenal capsule was normal. The pelvis was normal.

Dr. Matthews Duncan[3] read a paper before the Edinburgh Obstetrical Society on Jan. 14th, 1874, on a case of uterus unicornis dexter. The subject was sixty years of age and died from cancer of the pylorus. The left kidney, ureter, and renal artery were absent; the vagina and cervix were normal; but there was no passage from the cervical canal to the cavity of the uterus. The uterine body was rather elongated (as in my case) and on the left the organ was free and was covered with peritoneum, there being no trace of the left broad ligament, oviduct, ovary, or left angle of the uterus. The figure[4] accompanying the article is almost an exact representation of the organ in my case.

At the Obstetrical Society Dr. Braxton Hicks showed for Dr. Ogston, jun.,[5] an unilateral uterus and kidney (solitary) with two ureters. The uterus has only its right half developed, its left half, left oviduct, ovary, and broad ligament being wanting. There was no trace of a left kidney, but there was a left suprarenal capsule. The right kidney had two ureters, one being imperforate. The body, pelvis, and external genitals were normally developed.

Dr. Amand Routh[6] also showed at the Obstetrical Society a specimen of a fibroid from a one-horned uterus. This was reported upon by Mr. Alban Doran, Dr. W. S. A. Griffith, and Dr. Amand Routh at the meeting of the society on Feb. 2nd. This is not a true uterus unicornis. Here a tumour has encroached on a district of a normal organ and has dislocated its parts. The left ovary was below the tumour, which was in relation to the broad ligament, and the oviduct was evident. The right side of the uterus was normal.

Besides these cases there are several observations by foreign medical men, but in nearly all of them there existed some rudimentary trace of the appendages of the opposite or undeveloped side and in many there was only one kidney.

[1] Transactions of the Pathological Society of London, vol. x.
[2] Edinburgh Medical Journal, February, 1865.
[3] Obstetrical Journal, vol. i., p. 783.
[4] Ibid., p. 784.
[5] Transactions of the Obstetrical Society, vol. xxi., March, 1879.
[6] Ibid., vol. xxix., Jan. 12th, 1887.

I think that my case is remarkable in that there was no trace either of ligaments or appendages on the affected side, and in the position of the left kidney. As this was partly in the true pelvis and adherent it is a wonder that it was not injured by the passage of the head of the child during labour, but as far as I could ascertain there was no special difficulty or pain at that time. I consider, therefore, that this case is worthy of record, as it seems to be almost if not quite unique.

Harley-street, W.

A CASE OF EXTENSIVE EXTRAVASATIONS OF BLOOD IN VARIOUS PARTS OF THE BODY OCCURRING IN AN ANÆMIC WOMAN.

BY EDWARD JOSEPH BLACKETT, M.R.C.S. ENG., L.R.C.P. LOND.

THE following notes on a case in many respects resembling scurvy may possibly be of some little interest, as no cause could be discovered for the affection and the occurrence of a cerebral hæmorrhage during the progress of the case is, as far as I know, an uncommon complication. Some of the symptoms of scurvy were undoubtedly absent and the case was by no means a typical one; still, taking the case as a whole there might, I think, be found some warrant for designating it by that name. However, I will give the notes and let them speak for themselves, leaving the diagnosis of the case to abler men than myself.

The patient was a woman, aged twenty-eight years, who had had no previous illnesses of a serious nature. Her father is living, but her mother died at the age of forty-eight years from "jaundice" and one brother died from phthisis. I went carefully into the question of hæmophilia, but could elicit no history of that disease; the patient had had several teeth extracted a few months ago, but there was no excessive hæmorrhage after their removal. I saw her in November, 1897, when she was suffering from anæmia and amenorrhœa, the latter having existed since October, 1897. Her usual occupation was that of visiting the sick in some of the poorest districts in London about Soho-square, Golden-square, and Hoxton; but she had not come across any cases of scurvy in her visiting or any infectious diseases except measles, the majority of sick persons she had seen being old people suffering from bronchitis and chronic heart affections; neither had she noticed any very bad smells in the houses—at least, not more so than usual, for the sanitary arrangements of the poor are not of the highest order and bad smells are rather the rule than the exception. She had been visiting in these neighbourhoods for the past six months. The sanitary arrangements of the house in which she lived were excellent and the dietary was good, there being plenty of fresh meat and vegetables. Her appetite as a rule was good, though latterly it had fallen off. She had not been eating any tinned foods. The present illness commenced on Feb. 24th, 1898, when she began to spit blood, her friends thinking it came from her lungs. I saw her on the 28th, when she presented the appearance of a well-nourished young woman. Her cheeks were flushed and her lips were of a dark-purple colour and were swollen—in fact, they resembled large blood blisters. These blisters were broken in places and blood-crust was plentiful; there were patches of purpura on the left side of the chin. The insides of the cheeks were also deep-purple in colour, the left side being darker and more swollen than the right. The gums both of the upper and lower jaws were of the same dark colour but were not markedly swollen; this condition, however, may have been masked to some extent by the quantity of coagulated blood which was present along the margins. The front teeth of the upper jaw were missing and the other teeth were in various stages of decay, though not loose. There was a general oozing of blood from the surfaces of the gums and the mucous membrane of the cheeks. The tongue was coated and was swollen and slightly inflamed. There was no fœtor of the breath. There was rather profuse epistaxis. Nothing abnormal was discovered in the lungs and the heart-sounds were normal. Menstruation had occurred on the 25th and had been rather profuse; this was the first time she had been "unwell" since Oct. 18th, 1897. The pulse was, of fair strength and not rapid, the temperature was normal and the bowels were confined. The source of the hæmoptysis was clearly from the mouth and nose and not from the lungs; the blood, though red in colour, was not frothy. On March 1st there was very little change in the general aspect of the patient, the hæmorrhage still continuing, nearly two pints of blood having been lost (from mouth and nose) since the morning of Feb. 28th. Menstruation was still very profuse. A purpuric rash had appeared on the left leg and thigh. The pulse was slightly weaker and the bowels were open. On March 2nd fresh purpuric spots appeared on the upper part of the chest and around the neck. There were also one or two patches of purpura on the scalp. The lips were less swollen and the inside of the mouth was better. The hæmorrhage was ceasing. On the 3rd the first thing I noticed on seeing the patient was that the left side of the face was paralysed, the right side of the mouth was drawn up, and this was very marked when the patient smiled. The left eye could not be closed as could the right. The tongue when protruded was slightly deflected to the left. The patient had severe right frontal headache. The lips, mouth, and tongue were assuming a more natural appearance The catamenia had stopped. The temperature was 99·2° F. On the morning of the 4th the catamenia recurred; at first clots were passed, but afterwards liquid blood flowed. The patient vomited and the vomited matter was nearly black, but this was due rather to blood which had been swallowed than to any lesion of the stomach, as she said she often used to swallow the blood which collected in her mouth. The face was still drawn and the headache continued. The purpuric rash was still marked on the left leg and thigh and on the upper part of the chest. There was no hæmorrhage from the mouth or nose. On the 5th Dr. Whipham and my father saw the patient and then came to the conclusion that the case was one closely resembling scurvy in many of its aspects and that the facial paralysis was due to a cerebral hæmorrhage. There was marked reduplication of the second pulmonary sound, but otherwise the heart sounds were normal and nothing abnormal could be detected in the lungs. The catamenial flow was still very profuse and the frontal headache was severe; the tongue was coated, but it was pale; the cheeks were flushed, but the lips and gums had returned nearly to a normal condition. There was slight ulceration on the inside of the left cheek. The pulse was weak, the temperature was normal, and the bowels were open. Nothing worthy of note occurred till the 8th, when the catamenia finally ceased, having lasted almost continuously for eleven days, the usual duration of time being only two or three days. The patient, who had a severe headache, vomited once, the vomited matter consisting of curdled milk and bile, but no blood. On the 10th the tongue appeared to be more deflected to the left and the loss of power in closing the left eye was more marked. The headache had gone. The patient had two attacks of vomiting during the day. The purpuric eruption on the leg, thigh, and body was fading. On the 11th fresh purpuric spots appeared on both elbows and round the waist. On the 14th the patient looked much better; the lips, mouth, and gums were normal, the face was not so much drawn, and the purpuric eruption was fading. On the 18th there was a slight hæmorrhage from the uterus, but it lasted only a few hours. The purpuric eruption had disappeared and the face was nearly normal in appearance.

There has been nothing worthy of note in the further progress of this case; the patient got up for the first time on March 21st, and on the 29th, beyond the fact of feeling very weak, she said she felt quite well. Still the angle of the mouth was slightly drawn up when the patient smiled, but it seemed probable that in time all signs of facial paralysis would disappear and that the patient would make a complete recovery.

The treatment adopted was at first perchloride of iron and dilute sulphuric acid internally and glycerine of tannic acid for local application to the mouth. This was changed on March 3rd to liquid extract of ergot, chlorate of potash, and sulphate of magnesia, and on the 5th a mouth-wash of boro-glyceride and rosewater was substituted for the glycerine of tannic acid. On the 29th the patient was put on solution of strychnia and dilute phosphoric acid. The diet was at first beef-tea and milk with the addition of two fresh lemons daily, and on March 14th solid food was taken for the first time.

Seymour-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A SYMPTOM FOLLOWING ANGINA PECTORIS.

By ALBERT S. WORTON, M.B., C.M. GLASG.

THE following curious sequel of an attack of angina pectoris occurring in a case under my observation may possibly be worth recording. The patient was a woman, fifty-four years of age, who had for many years suffered from cardiac valvular disease consequent on rheumatism, and had within the last three months or so developed symptoms referable to failure of compensation, and with this concurrent attacks of cardiac spasm of the variety known as angina sine dolore. These attacks latterly had occurred daily, each lasting only for a few seconds, but attended always with a marked fear of approaching death. Recently she had drawn my attention to a very curious result of the attack, coming on perhaps twenty minutes or so after the heart condition had ameliorated. This consisted of a feeling of numbness beginning at the extreme tip of the left middle finger, followed immediately by blanching and complete loss of sensation extending gradually up the whole length of the finger until it reached the metacarpo-phalangeal articulation, at which point it was finally arrested without ever proceeding further. By this time the entire finger was, to use her own words, "cold and dead." Unless recourse was had to vigorous rubbing and warming this state would last for about half an hour before sensation spontaneously returned, but five minutes of the above active treatment usually sufficed to restore it to the normal condition. The patient further distinctly averred that it was almost invariably the left middle finger alone which was so affected, although rarely the ring-finger of the same side might also participate, but never under any circumstances whatever were the fingers of the right hand affected. I have never been fortunate enough to actually observe the above sequence of events, but there seems no good reason to doubt statements so definitely put forth and corroborated also by a sister resident in the same house. The phenomenon was obviously due to local vaso-motor spasm analogous to the local syncope of Raynaud's disease and probably its invariable occurrence on the left side is to be accounted for by the much more extensive nervous connexions on this side through the brachial plexus with the cardiac nerve apparatus.

Redditch.

PAROTITIS FROM OBSTRUCTION OF STENSEN'S DUCT.

By R. HILL BROWN, M.B., C.M. EDIN.

THE following case is of interest on account of the rather unusual nature of the exciting cause.

The patient, a married woman, consulted me on account of pain and swelling on the left side of the face. On examination the left parotid gland was found to be considerably enlarged and extremely tender. There was difficulty in opening the mouth owing to the pain and stiffness and feeding was greatly interfered with. On examination of the mouth no unusual features could be detected and the case resembled one of ordinary mumps. There was considerable constitutional disturbance and fever, the temperature being 103° F. The general symptoms became gradually worse. A week after I first saw the patient she complained of a pricking sensation in the cheek as of the presence of a foreign body. On looking into the mouth a small-pointed body was seen projecting from Stensen's duct. It was somewhat firmly impacted in the duct and presented some difficulty to extraction with forceps. The foreign body proved to be a feather about an inch in length, of the kind used in feather mattresses. Almost the whole length of the feather had been embedded in the duct. After its removal a considerable quantity of pus flowed away from the duct. For several days there was a sero-purulent discharge but the pain and swelling rapidly subsided.

The patient remembered getting a feather into her mouth whilst shaking a feather mattress and trying to spit it out. It must have slipped between the gum and the cheek, the end getting accidentally impacted in the opening of Stensen's duct. The movements of the cheek in eating would probably help it in its passage along the duct. The organisms producing suppuration would be introduced along with the feather from the cavity of the mouth.

Nottingham.

A CASE OF DEAD TWIN RETAINED TO FULL TERM.

By WALTER C. HEARNDEN, M.R.C.S. ENG., L.S.A.

ON March 2nd I was sent for to attend a multipara, thirty-two years of age. On arrival I found that a healthy girl, weighing 7 lb., had been born about twenty minutes and the placenta had been expelled naturally. The nurse produced a small dead fœtus which had come away with the placenta. It measured 3½in. in length when fully extended and the occipito-frontal diameter of the head measured 1½ in. It had been squeezed quite flat so that the body was not more than ¼ in. thick and the head was still less. It was enclosed in a membrane which could be peeled off it, but the fluids had escaped. There were a small placenta and an umbilical cord 1¼ in. in length. The head was rotated backwards and the spine folded down. The mother, whose last child is six years old, is very delicate, suffering from apex systolic murmur and floating kidney. She complained of great pain in the uterus during the pregnancy and was at times unable to get out of bed for days together.

Leatherhead.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

TEDDINGTON COTTAGE HOSPITAL.

A CASE OF CÆSAREAN SECTION.

(Under the care of Mr. R. A. CLARKE.)

CÆSAREAN section has always possessed a great fascination for the popular mind, and to this fact must be attributed the numerous accounts which exist of its having been the means of ushering into the world several celebrated persons, though in most of the cases the tradition has very little foundation. Yet it is probable that the operation has a high antiquity, though no very trustworthy account is of earlier date than the commencement of the seventeenth century. The operation has been performed in a large number of cases of difficult labour, but unfortunately it has on the whole been accompanied by a very heavy mortality. At one time the mortality after the operation in England was calculated at over 85 per cent., though some allowance must be made for the desperate condition of many of the patients on whom the operation was performed. In 1874 Schroeder collected 480 cases of this operation in England, and of these 244 were fatal, a mortality of 50·8 per cent., and his figures for other countries did not materially differ from these. In more recent times the death-rate has decidedly diminished with the general employment of the antiseptic method; and Dr. R. P. Harris[1] has shown that during the eight years from 1886 to 1894 of 60 Cæsarean operations in the British Isles only 19 women died. This gives a mortality of 31·6 per cent. But results far superior to these have been obtained in the practice of some operators; for instance, Murdoch Cameron[2] of Glasgow had only 1 death in 10 cases, a death-rate of 10 per cent.

[1] THE LANCET, May 19th, 1894, p. 1242.
[2] Brit. Med. Jour., March 7th, 1891, p. 512.

Münchmeyer[3] has recorded that of 28 cases at Dresden only 3 proved fatal; this gives a mortality of 10·7 per cent.; and Paul Zweifel lost 2 cases out of 30, a mortality of only 6·6 per cent. That there is very little in the operation itself to account for the heavy death-rate which has usually accompanied it is shown by the fact that at least 6 cases are on record in which the patient has operated on herself, and in 5 of these she has recovered[4]; the most remarkable of these cases was recorded in THE LANCET in 1886.[5] The operation is also practised by the natives of Uganda, and with much success.[6] With such varying results the causes of the heavy mortality which so often follows the operation need to be investigated. They are chiefly these: hæmorrhage, sepsis, and exhaustion. The use of sutures for the uterine wall was introduced in 1769 by Le Bas of Mouilleron,[7] yet many operators declined to insert sutures into the wall of the uterus for more than a hundred years later; if they are employed hæmorrhage need not be feared. Sepsis is naturally less common now than formerly, but it is noteworthy that long before the introduction of the antiseptic method the mortality after Cæsarean section in the hospitals of large towns was always much greater than in cases operated on in the country. Dr. R. P. Harris has shown that in the United States the death-rate in the country was only 37·5 per cent., while in small towns it was 66 per cent. and in large cities 67 per cent., and the same fact has been noticed in England. The explanation undoubtedly is that at that time there was a much greater risk of sepsis in a hospital than in a country cottage. The third cause of death—namely, exhaustion—is less easy to evade than the two others, for there is a very natural tendency to postpone such an operation until all other modes of delivery have been tried. When compared with other methods Cæsarean section probably does not give results superior to craniotomy if the operator is a skilled obstetrician, but for the average medical man in country practice we think that the Cæsarean operation offers a better prospect of a successful result. In this sketch of the operation we have not considered the question of the child, for it is generally recognised that the life of the mother is the first consideration. At least two cases are recorded in which Cæsarean section has been performed with success four times on the same individual.[8] We cannot but think that in time Cæsarean section will be attended with a much lower mortality and that it will in great part replace craniotomy in cases of difficult labour. In Mr. Clarke's very interesting case it is extremely doubtful if a successful result would have followed any other method of treatment.

On Feb. 16th last, Mr. Clarke having been called to see the patient in consultation with a neighbouring practitioner, was informed that she had been in labour for about 40 hours and on examination he found a right foot and left hand presenting externally; the cord was prolapsed and in the brim could be felt the other hand and lower half of the face, the forehead being firmly impacted on the pubes. Repeated attempts had been made to perform podalic version, by which the presenting leg had been broken, and the jagged ends of the tibia and fibula looked decidedly dangerous; unsuccessful attempts had also been made to grasp the head with forceps and by this time the mother's parts had become intensely swollen and œdematous, the uterus being in a state of strong tonic contraction. Her surroundings from a sanitary point of view being simply deplorable she was removed to the Cottage Hospital before anything further was attempted. On arrival there a consultation was held and as she was in a very exhausted condition a subcutaneous injection of liquor strychninæ was administered and she was at once placed under an anæsthetic. On making a full and careful examination the fœtus was found to be so firmly impacted that it was impossible to move it or to alter its position, and as it lay no part of the head could be reached to perforate without extreme difficulty. Evisceration was practically impossible. As the woman was now showing urgent signs of exhaustion it was decided that Cæsarean section would be the quicker and safer method of delivery, and this Mr. Clarke did at once, removing the fœtus without difficulty. The placenta was not adherent and hæmorrhage was very slight. After thoroughly douching the uterine cavity with water at 120° F. and suturing the uterine incision with six points of stout silk, the abdominal wound was closed with six deep sutures of silk and ten superficial ones of horsehair; a good dusting with iodoform, a pad of blue gauze, and a flannel roller completed the dressing. The patient was now put to bed in a very exhausted condition but she gradually improved. Twelve hours later her temperature was subnormal and it rose slowly until the third day, when it reached 100·2°. It declined to normal by the eighth day. The wound healed by first intention and the recovery was uneventful. At the time of writing (35 days after operation) the patient is up and walking about the ward, apparently none the worse, only wearing a belt as a precautionary measure.

Remarks by Mr. CLARKE.—Contracted pelvic brim being the usual condition which necessitates Cæsarean section, the present case is of special interest as the patient was a multipara, twenty-five years of age, with a normal and full-sized pelvis. I have refrained from giving details of the operation or after-treatment, my only object in writing being to show that Cæsarean section in given cases is a much safer proceeding than protracted attempts at evisceration or perforation, which must often result in severe damage to the uterus and vagina.

[3] Archiv für Gynäkologie, Berlin, Band 37, Heft 2.
[4] American Journal of the Medical Sciences, February, 1888, p. 150.
[5] THE LANCET, May 8th, 1886, p. 890, and May 22nd, 1886, p. 994.
[6] R. W. Felkin: Edinburgh Medical Journal, April, 1883, p. 922.
[7] Journal de Médecine, Chirurgie, et Pharmacie, vol. xxxiv., p. 177.
[8] G. A. Michaelis: Neue Zeitschrift für Geburtskunde, vol. v., p. 1 and Oettler: Monatsschrift für Geburtskunde, vol. xxxiv., p. 441.

SHEFFIELD ROYAL HOSPITAL.

A CASE OF PULMONARY ABSCESS SUCCESSFULLY DRAINED.

(Under the care of Dr. DUNCAN BURGESS and Mr. SINCLAIR WHITE.)

THOUGH pulmonary abscesses have been opened with success in no small number of cases, yet many surgeons hesitate to perform the operation unless the abscess is almost pointing externally. It is true that in many cases which are tuberculous in origin the relief afforded by the operation is only temporary, as the case goes on to its fatal issue, but the relief is often very great. Truc[1] quotes several cases in which the operation has been successful, and Réclus[2] collected 8 cases in 6 of which recovery resulted. For the notes of the case we are indebted to Mr. Sinclair White.

A woman, aged twenty-five years, was admitted to the Sheffield Royal Hospital on Aug. 13th, 1897, under the care of Dr. Duncan Burgess, who subsequently handed the case over to Mr. Sinclair White. The history was briefly as follows. Three years previously she had an attack of spitting of blood and was said to be in danger of developing phthisis. She then remained well and free from lung trouble for two years. In October, 1896, the spitting of blood returned and continued at intervals for the succeeding three months. From this time onwards until she was operated on she never lost her cough. In March, 1897, she again spat blood, but she was able to go about until June when her cough became very troublesome and for the first time she noticed that the expectorated matter had an offensive odour.

On admission to hospital the patient was moderately emaciated. She had a very troublesome cough and expectorated a large amount of offensive sputum. Microscopical examination of sputum revealed an abundance of pus corpuscles, but no bacilli of tubercule could be detected. The temperature increased to 103° F. in the evening and she had night sweats and hectic. The lower half of the left side of the chest was dull on percussion and vocal resonance and fremitus were diminished. The heart was not displaced. An aspirating needle revealed clear serum at about the depth of the pleura over the affected region. The case was watched until Dr. Burgess returned from his holiday, when he diagnosed a pulmonary abscess and requested Mr. Sinclair White to drain it.

An operation was performed on Sept. 14th, when the patient was placed in the left semi-prone position with the left side of the chest close to the edge of the table. The left eighth and ninth ribs were resected just beyond their angles, about one inch of each rib being removed. The pleura was then carefully opened, when a small quantity of clear serum escaped. On introducing the finger Mr. Sinclair White ascertained that he had got into a detached portion

[1] Essai sur la Chirurgie du Poumon (Paris, 1883).
[2] Transactions of the French Surgical Congress, 1895, in Appendix to S. Paget's Surgery of the Chest.

of the pleura completely shut off from the general pleural space. The lung, covered with glistening pleura, could be seen at the bottom of the opening. An aspirating needle was thrust into the centre of the portion of the lung exposed and at the first attempt pus was found. Leaving the needle for a guide Mr. Sinclair White passed a sharp-pointed bistoury along its course and after traversing half an inch of hepatised lung tissue it entered the abscess cavity, which was approximately 2 in. by 3 in. in extent and irregular in outline. No attempt was made to cleanse the cavity, but a large rubber tube was inserted and was surrounded with iodoform gauze where it passed through the pleura. The operation was well borne and there was very little hæmorrhage from the lung.

From the date of the operation the patient steadily improved. The evening fever, hectic, and sweating at once disappeared and the cough became less troublesome. The discharge rapidly lost the evil odour it had at first possessed and gradually diminished in amount. The tube was replaced by gauze at the end of six weeks and a fortnight later the wound had entirely healed. She was discharged at the end of November in robust health, having gained much flesh and entirely lost her cough.

Remarks by Mr. SINCLAIR WHITE.—The case was a suitable one for operation and gave rise to no surgical difficulty. In the majority of cases of pulmonary abscess which come under the care of surgeons it would appear that the pleural space over the affected region is obliterated by antecedent inflammatory exudation. In such cases the surgeon's task is a simple one. But when the pleura over the affected part of the lung is not obliterated the difficulties and dangers of the operation are greatly increased. At present it would seem that the safest way of dealing with such cases is to divide the operation into two stages with an interval of four or five days. The first stage consists in cutting down to the pleura and passing a ring of sutures through its parietal and visceral layers so as to isolate the area of operation from the rest of the pleural space. The wound is then packed with gauze and as soon as the effused lymph has sealed off the "operation area" the lung is incised. The semi-prone position on the affected side is undoubtedly the most suitable one for operation. It permits of free play for the healthy lung and gives free access to the back of the diseased lung, while it reduces the risk of suffocation from pus suddenly entering the sound lung on opening a large abscess.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Immunity from Cobra Poison.—Molluscum Contagiosum in Sparrows.—Adenochondroma of the Submaxillary Gland.—Primary Myxo sarcoma of the Pleura.—Primary Sarcoma of the Lung.—Myxœdema.—Exhibition of Specimens.

A MEETING of this society was held on April 5th, the President, Dr. J. F. PAYNE, being in the chair.

Dr. WALTER MYERS (Cambridge) read a preliminary note on some experiments bearing on Immunity against Cobra Poison. Dr. Myers first reviewed the different views which were held as to the nature and mode of action of antitoxins. He supported the view that a certain amount of the antitoxic substance was normally present in the animal which furnished the antitoxin and that this chemically combined with and neutralised the toxin. He referred to the experiments of Wassermann, who showed that if the brain of a guinea-pig were intimately mixed with tetanus toxin the latter became neutralised in vitro and inert when injected unless an excess of toxin were present. Dr. Myers's own experiments had been undertaken with cobra poison. He tried to find out whether any of the organs of the guinea-pig had any antitoxic effect on the poison. He found that the brain and spinal cord had no effect and the only organ which gave positive results was the suprarenal body. He used a 10 per cent. emulsion in sterilised normal saline solution. He used rather more than the ordinary lethal dose of the toxin and mixed it with the suprarenal emulsion before injection. Seven animals were injected and of these four survived altogether and the remaining three lived much longer than the "control" animals. Positive results were also obtained from the suprarenal body of the sheep, two out of three of the animals experimented on recovering.

Mr. S. G. SHATTOCK exhibited specimens of Molluscum Contagiosum in two mated Bunting Sparrows. In November, 1897, a bunting sparrow was sent to the Royal College of Surgeons of England with a spheroidal tumour under the mandible, which was found on histological examination to be in all details a molluscum contagiosum as this is met with in the human subject, the typical molluscous bodies occurring in the epithelium, arranged in the well-known acinoid groups. The molluscous material was not chemically identical with the eleidin of the stratum granulosum. About a month later the mate of this bird was sent to the College, a similar swelling having developed in it after the death of the first sparrow. The growth in the second case lay in front of the left eye and likewise presented the histological appearances diagnostic of molluscum. Circumstances rendered it as probable here that the disease had been contracted in the second bird by inoculation, as did the clinical evidence that the disease was contagious in the human subject. Mr. Shattock did not see how dermatologists could question its contagious character. He had examined molluscum in the sparrow, but it was especially in fowls, turkeys, and pigeons that the disease occurred, the lesions being commonly about the head owing to the fact that this was the least protected part and the most exposed to inoculation by reason of the well-known habits of birds, whether of amorous or vindictive kind. He had been unable to discover whether the disease was present amongst those to whom the birds belonged. Mr. Hutchinson had recorded a unique instance in which molluscum was present in a dog (as proved by microscopic examination) and in its owner and in which the latter appeared to have contracted the disease from the former. As to the protozoic nature of the molluscous bodies this was still *sub judice* and until Koch's second postulate was carried out no statement in this regard could be held as anything else than an opinion. He referred to the comparatively simple attempts in this direction made by Mr. Ballance and himself, which gave a negative result. As damp sand and pond water were the natural habitats of the common amœba, and as psorospermiæ flourished so widely in the fresh water of ponds and rivers, wet sand was the medium selected. After complete sterilisation the sand was placed in capsules and heaped up to one side, so that when the sterilised water was added part of the sand remained above the water level, the object of which was to obtain a littoral for the better aeration of any protozoa that might develop. Freshly excised mollusca were divided and pushed into the wet sand, the latter being subsequently examined from time to time by withdrawing portions from the neighbourhood of the fragments; no evidences of protozoic life were ever encountered.—Dr. COLCOTT FOX said that the disease was not very uncommon among fowls and sometimes took the form of a destructive epidemic. Yaws had been described as occurring in fowls in the West Indies. A friend sent him home specimens of supposed yaws in a fowl, but on examination the disease turned out to be molluscum contagiosum.—The PRESIDENT did not think that it was doubted in this country that the disease was contagious, although it did not pass very readily from man to man. It was probable therefore that it carried on its life in its most certain and most prolific form in the lower animals, especially poultry.

Mr. H. J. CURTIS exhibited a specimen of Adenochondroma of the Right Submaxillary Gland. The case occurred in a woman, twenty-four years of age, under the care of Mr. A. E. Barker. The growth had been noticed for eight or nine years and three years before the patient came for advice it had begun to increase in size gradually. The tumour formed a swelling below the middle of the right superior maxilla. It was very hard and of the size of a walnut. It moved freely beneath the skin, but from its deep surface a process could be felt extending inwards. It could also be felt in the mouth and made still more prominent there by external pressure. The patient was perfectly well and free from recurrence nine months after removal of the growth. The tumour was enclosed in a firm fibrous capsule and was nodular. On section numerous pearly-white cartilaginous-looking patches were seen scattered over the cut surface, which was otherwise of a light buff colour. Microscopically hyaline cartilage with immature stellate cells pervaded the whole growth, the cartilage columns being separated by solid cylinders of cubical epithelium, which also appeared as tubular acini. In some of the tubules secretion was clearly visible. Referring to the literature of the

subject, after careful search Mr. Curtis found that some 11 or 12 cases have been recorded on the continent and, including the present specimen, 9 by English observers. The benign nature of this tumour, so much more commonly seen in the parotid, was referred to in connexion with prognosis and the need for the careful record of every case was emphasised so as to obtain a more accurate estimate of the frequency with which it occurs.

Dr. PERCY KIDD and Dr. S. H. HABERSHON showed a specimen of Primary Myxo-sarcoma of the Pleura. The patient, a girl, aged eighteen and a half years, was admitted into the Brompton Hospital on Sept. 1st, 1897, for pain in the left side and dyspnœa which had set in suddenly a month previously. On admission there were physical signs of a large effusion into the left pleura, the heart being greatly displaced to the right. But at first it was noted that although the dulness in front extended from apex to base posteriorly the dulness did not reach higher than the middle of the scapula. Subsequently the whole left side became dull to percussion and the dulness extended across the upper part of the sternum to the right as far as the mid-clavicular line. There were no enlarged glands and no paralysis of the vocal cords. The temperature only once rose above 100°F. Paracentesis was performed on four occasions, but only a little blood was obtained. Dyspnœa and exhaustion increased and the patient died on Oct. 29th, 1897, three months after the onset of her illness. At the necropsy an enormous mass was seen filling up the left chest and extending across into the right side, the heart lying entirely to the right of the sternum. The left lung lay collapsed and carnified behind the tumour, the pleural cavity being obliterated by spongy adhesions. On section the tumour consisted of a coarse fibrous network enclosing many large blood cysts, a smaller number of cystic spaces containing viscid puriform matter and some yellowish-white masses of growth. The lungs, mediastinal and bronchial glands were unaffected and there were no secondary deposits in the body. The softened puriform material consisted microscopically of stellate and pyriform cells with a few pus corpuscles. Sections of the solid growth presented the characters of a myxo-sarcoma with extensive hæmorrhages and numerous large thin-walled vessels.

Dr. HABERSHON also showed a specimen of Primary Sarcoma of the Left Lung from a man, aged seventy-eight years. In its clinical aspects the case was one of importance because it presented the physical signs of an empyema with considerable contraction of the left side and displacement of the heart almost to the axilla. It is always a point of difficulty to decide how far contraction of the affected side is compatible with a malignant growth, and though the case is not an isolated one the condition is by no means common. The growth was a primary sarcoma occupying the position of the centre of the lower lobe of the left lung, softening and ulcerating its way into the œsophagus. The surrounding lung was indurated and in an advanced state of fibrosis.

Mr. CECIL BEADLES gave a very complete demonstration from lantern slides of the microscopic changes of the Thyroid Body, the Pituitary Body, the Skin, the Muscles, and the Adipose Tissue from two cases of Myxœdema. In the second case there were also trichinæ in the sterno-thyroid and pectoral muscles. There was insanity in each case. The chief points shown were the atrophy of the thyroid, enlargement of the pituitary, and a pale gelatinous condition of the fat. The nuclei of the fat-cells were vacuolated. In the lungs there were nodules of dense hyaline material the nature of which was uncertain.

The following card specimens were exhibited:—

Mr. PERCY FURNIVALL: Fœtus showing a Hernia.

Dr. ROLLESTON: Pancreatitis.

Mr. G. T. JAMES: (1) Subdural Hæmorrhage; and (2) Pyosalpinx.

Dr. HEBB: Peri-œsophageal Cyst.

HARVEIAN SOCIETY OF LONDON.

The Treatment of Caries of the Spine.

A MEETING of this society was held on March 31st, Mr. J. H. DREW being in the chair.

Mr. JACKSON CLARKE said that in its main features tuberculosis of the spine might be compared with a similar condition in a large joint. Radical treatment in the form of complete excision of the diseased parts had been practised even in the spine, but the usual means adopted were: (1) Rest on a firm mattress in a supine position with or without weight-extension; (2) Phelps's box; (3) the double Thomas's splint; (4) Sayre's plaster jacket; (5) the felt corset; and (6) steel splints, which might be combined with rest on a prone couch. Whenever symptoms pointed to rapid progress of the disease rest with weight-extension was indicated. In less rapid conditions Mr. Clarke preferred a good steel splint to any form of corset. Chance's (1852) and Taylor's (1871) were the best known of the steel supports. In principle they were closely allied. Mr. Clarke used the older of these instruments and found it very satisfactory, as it admitted of readily-effected modifications in cases of cervical and high dorsal caries. Combined with rest on a prone couch, Chance's splint could be used successfully even in unpromising cases. The chief complications were (1) abscess, (2) sinus, and (3) paraplegia. Mr. Clarke related a case in which a psoas abscess had ruptured, causing a diffuse suppuration in the thigh. Since antiseptics had removed the objections to early opening of abscesses there was now no need of delay when once the condition had been recognised. Sinuses need only be feared when abscesses opened spontaneously, and even when of old standing they could often be made to close by injecting daily one or two drachms of 1 in 40 carbolic lotion. When profuse suppuration persisted or lardaceous disease threatened sinuses might demand operative measures. With regard to paraplegia he had seen even hopeless-looking cases recover without operation, and in every case he would give rest a prolonged trial before contemplating surgical interference. Laminectomy was indicated in many cases of fracture of the spine, but fracture was of rare occurrence in caries, and on *a priori* grounds it would appear undesirable to remove the remaining sound parts of the spinal column opposite the seat of disease. Immediate reduction of the angular deformity had in several cases of paraplegia appeared to do good and it might certainly be tried as an alternative to laminectomy.

Dr. JAMES TAYLOR said that on post-mortem examination paraplegia had been found to be associated with myelitis. He agreed that with prolonged rest most cases would do better than with operation.

Mr. DREW remarked that he was glad to find that the spinal support shown at the meeting could be successfully substituted in suitable cases for the unyielding plaster of Paris and felt jackets, also that there was an absence in the support of "iron crutches" in the axillæ and the adoption of a padded strap which was equally effective and far preferable. Mr. Clarke was to be congratulated on the good result of the cases he had brought before the society.

Mr. HUBERT PHILLIPS stated that he had, both as a student and in private practice, had excellent results from the application of Sayre's jacket, always in mild cases, however. He had invariably used extension in order to relieve pressure on the diseased portion of the spine and also to obtain good support from the armpits. The Sayre jackets were, however, at best uncomfortable appliances to wear, owing to the length of time patients were obliged to keep them on. Chance's splints certainly had many palpable advantages. He asked Mr. Clarke at what period of the disease Chance's splints should be applied and what was the earliest stage at which it was advisable to start using them?

Dr. WINSLOW HALL urged the value of prolonged recumbency and was surprised that in many cases Mr. Clarke allowed the patient to walk about.

Mr. JACKSON CLARKE replied that Sayre's jacket sometimes gave temporary relief, but it failed to check the progress of the disease. Prolonged recumbency was necessary in many cases but the benefit derived from it was sometimes lost by its being persevered in too long. The steel splint was the lightest form of apparatus and he used it for children from two years of age and upwards as well as for adults.

OBSTETRICAL SOCIETY OF LONDON.

The Menstruation and Ovulation of Monkeys and of the Human Female.—Exhibition of Specimens.

A MEETING of this society was held on April 6th, Dr. C. J. CULLINGWORTH, President, being in the chair.

Mr. WALTER HEAPE read a paper on the Menstruation and Ovulation of Monkeys and of the Human Female. 1. Menstruation.—Mr. Heape described the histological process of menstruation in Macacus rhesus as identical with that already described in the society's Transactions for Semnopithecus entellus—viz., a growth of stroma and increase of vessels, a breaking down of congested vessels and consequent formation of lacunæ, a degeneration of the superficial mucosa and rupture of lacunæ, and a denudation of the superficial portion of the mucosa with consequent formation of a menstrual clot—the only difference of moment being that in Macacus rhesus the mucosa is thicker, the protoplasmic network is denser, and the glands are more numerous and more branched than in Semnopithecus entellus. Sections of human and monkeys' uteri were shown to demonstrate these points and Mr. Heape was led to infer that in all probability the menstrual process is practically identical in women and in female monkeys. He pointed out that although monkeys menstruate all the year round they (at least some of them) only breed at certain times of the year and thus occupy an intermediate position between the lower mammals and the higher primates. He expressed the opinion that the histological homology of "heat" and menstruation would be established. 2. Ovulation.—With regard to the relation between ovulation and menstruation two divergent views were quoted, the one that ovulation occurs at each menstrual period and that the two processes are due to the same active cause; the other that ovulation and menstruation are independent of each other, that they are due to independent stimuli and are coincident only by accident. Out of 59 adult menstruating female monkeys only one was found with a recently discharged Graäfian follicle. Mr. Heape summarised his observations by stating that in women and female monkeys (1) ovulation and menstruation are not necessarily coincident; (2) menstruation may take place without ovulation; and in women (3) ovulation may occur without menstruation. Mr. Heape combated the views that in the lower animals "heat" is brought about by ovulation or that the ovary is the seat of the stimulus which induces heat; he urged that both menstruation and ovulation are closely connected with, and largely influenced by, congestion, and that in the primitive condition they were both due to the same cause.

Dr. PETER HORROCKS said that in women there was incontestable evidence that ovulation occurred without menstruation, for it was a well-known fact that a woman might conceive without menstruating. Girls in India not infrequently conceived before menstruation began and a woman during the amenorrhœa associated with lactation occasionally conceived again without menstruating. He did not, however, know any facts which proved that menstruation could take place without ovulation. It was well known that when the ovaries were removed, or if they became wholly degenerated, or if they ceased their function, then menstruation ceased. He could not help feeling that menstruation in women and rut in animals were not the same thing.

Dr. HERMAN thought that Mr. Heape's valuable paper went to show how very imperfect our knowledge was of the physiological changes that went on in the ovary. He still thought that menstruation depended, if not upon ovulation, yet upon some ovarian function; he based this opinion upon the broad clinical facts that when the ovaries were absent or ill-developed menstruation was never present and when both ovaries were removed menstruation always stopped.

Mr. HEAPE replied.

The following specimens were exhibited:—

Mr. DAWSON: A Uterus with Ruptured Tubal Gestation Sac in which the pregnancy had not advanced beyond the fifteenth day and which terminated fatally from hæmorrhage.

Dr. MACNAUGHTON JONES: A Uterine Fibroid with anomalous Solid Ovarian Tumour.

Dr. WALTER TATE: A Fibro-myoma of the Uterus removed by abdominal hysterectomy.

The PRESIDENT made reference to the recent death of Dr. Leonard Remfry, assistant obstetric physician to St. George's Hospital, and of Dr. Charles West, a past-president and an honorary Fellow of the society, and it was agreed that suitable letters of regret and condolence should be forwarded in the name of the society to Mrs. Remfry and to Mrs. West.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

The Use and Abuse of Mydriatics.—Morphia in Cardiac Diseases.—Coley's Fluid in Sarcomata.

THE sixth meeting of the forty-second session of this society was held on April 1st at the Royal Kent Dispensary, Greenwich-road. The chair was occupied at first by Dr. MORGAN DOCKRELL and afterwards by the President, Mr. W. ARBUTHNOT LANE.

Mr. ERNEST CLARKE read a paper on the Use and Abuse of Mydriatics. He enumerated the various mydriatics in common use and after describing their physiological action and their individual peculiarities he specially drew attention to the great value of homatropine and cocaine as a paralyser of the ciliary muscle when used sufficiently strong. By experiments on himself and others he had obtained complete loss of accommodation in thirty-five minutes with a tabloid of homatropine and cocaine gr. $\frac{1}{16}$, and the great advantage of this drug was that all effects had passed off in twenty-four or twenty-six hours. He detailed the different uses of mydriatics and showed that the most important result of their use was "putting the eye into splints." He further showed why they were so dangerous in acute glaucoma and finally very strongly recommended the use of ophthalmic discs or tabloids, which on account of their accuracy, non-liability to decomposition, and the fact that toxic effects rarely, if ever, followed their careful use, rendered them far preferable to drops and lotions.

Dr. F. S. TOOGOOD, Medical Superintendent of Lewisham Infirmary, read a paper on the Use of Morphia in Cardiac Disease, and after describing the physiological effects of the drug upon the cardio-vascular system and upon the kidneys recounted a series of cases in which perfect compensation of the heart and entire cessation of all symptoms had been obtained after the failure of all other drugs, including digitalis and its allies, which had only excited persistent and uncontrollable vomiting. The paper drew special attention to the fact that scanty urine containing albumin was an indication for the administration of morphia and gave many instances where its use had been accompanied by the secretion of the normal amount of urine and by the total clearing up of the albumin.

Dr. MORGAN DOCKRELL read a short paper on the Use of Coley's Fluid in Sarcomata and described the results in a case under his care.

The several papers were discussed by the PRESIDENT, Dr. TAYLOR, Dr. SCHOLEFIELD, and Dr. DOCKRELL.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Clinical Report of the Rotunda Hospital.—Exhibition of Specimens.

A MEETING of this section was held on March 18th, Dr. F. W. KIDD, the President, being in the chair.

Dr. W. J. SMYLY read the Clinical Report of the Rotunda Hospital for three years, 1893–96.—The PRESIDENT said that the thanks of the section were due to Dr. Smyly and his collaborators, Dr. Wilson and Dr. Jellett, for the report. He thought such results were not likely to be eclipsed for a considerable time. He expressed surprise at the number of cases under the heading of Accidental Hæmorrhage. In 134 cases of abortion 50 were curetted, which seemed to be a very large proportion. He congratulated Dr. Smyly on there being no death from placenta prævia. He thought that severe post-partum hæmorrhage, not arising from the situation of the placenta at all, often occurred and that its origin was often overlooked. He thought that the case in which there was found a double uterus after removal of the uterus and the subsequent recovery of this patient was very remarkable.—Dr. TWEEDY observed that a great many of the deaths were in women brought into the hospital with fatal symptoms already marked. Three of the five septic cases had evidently become septic outside and nothing could have saved them. The cases of eclampsia seemed to have been very severe. The giving of morphia in eclampsia was an interesting point. Some observers say that its administration kills the child, but in one of Dr. Smyly's cases the child

was alive although the mother got more morphia than any other case.—Dr. LANE said that he could not quite agree with the President's opinion that the deaths from accidental hæmorrhage were above the average.—Dr. GLENN remarked that the use of the sharp curette in the treatment of abortions was in skilled hands quite safe, while for those not so self-confident the use of the blunt instrument was good practice. Dr. Smyly's three fatal cases of incomplete abortion would have died whether curetted or not. He thought that a serious omission in reference to forceps cases had been made in the report—viz., there was no record of mortality in regard to the children. He thought that a record of these deaths should also be kept as it would be of great interest to future generations.—Dr. SMYLY, in reply, said that if the suggestions made by Dr. Glenn were adopted by future reporters they would add to the value of future reports. He would himself suggest that in addition to noting the total number of cases in which the temperature rose above 100·8° F. it would be important to record the number of cases in which the patients were really ill and those in which it rose on one occasion only.

Specimens of Myomatous Uteri, Ovarian Cysts, and Ovarian Sarcoma were shown by Dr. SMYLY, Dr. J. H. GLENN, Dr. R. D. PUREFOY, and Dr. JELLETT.

ULSTER MEDICAL SOCIETY.

Management of Labour.—Life Insurance.—Exhibition of Specimens and Cases.

A MEETING of this society was held in Belfast on April 7th, the President, Dr. J. A. LINDSAY, being in the chair.

On the motion of the PRESIDENT, seconded by Professor BYERS, it was unanimously agreed to send a letter of condolence to the widow of Dr. Henry Bingham, a well-known member of the society, whose death had occurred since the previous meeting of the society.

Professor BYERS read a paper on the Management of the Third Stage of Labour. He said that there were two factors to be considered in the third stage of labour: (*a*) the separation and (*b*) the expulsion of the placenta and membranes, and it would be necessary to examine how nature herself managed this period. He then discussed the various theories put forward to account for the separation of the placenta—viz., the retro-placental hæmatoma view, the detrusion theory, and the view that separation of the after-birth is due to a disproportion in size between the placental site (where it is attached to the uterus) and the placental area (placenta itself). In the settlement of this question they must be guided by evidence afforded from two sources: clinical experience and sectional anatomy. Professor Byers pointed out the special value of the sectional anatomy of the third stage of labour and showed that the original observations in this direction made by Dr. Barbour of Edinburgh had been fully confirmed by Pestilozza of Milan, Stratz of Berlin, and Pinard and Varnier of Paris. It had thus been demonstrated that the placenta did not separate until the third stage of labour, that its area could contract to almost one-half its size without separation taking place, that there was no hæmorrhage behind the placenta, and that there was no cavity in the uterus beyond that occupied by the after-birth. In the management of the third stage of labour some had urged an expectant plan until nature herself expelled the placenta; others (Ahlfeld) advised waiting two hours. The objections to this treatment were stated and Credé's method and the "Dublin" plan were very fully described and contrasted. Professor Byers said they must try to allow the placenta to be separated by the uterus itself, and it was when this had occurred and when the upper, thick, active, contracting portion of the uterus had driven the placenta into the lower uterine segment (which was expansile and passive) or vagina that pressure from above the axis of the brim should be made to expel the afterbirth. He pointed out how they could ascertain clinically that there was separation of the placenta. In most cases the uterus by its retraction and contraction effected this itself; in a few cases gentle massage was necessary. In conclusion he recommended as the best way of conducting the third stage of labour: (*a*) following down the uterus when the fœtus was being expelled; (*b*) the constant control of the uterus by the hand; (*c*) the turning of the patient on her back after the birth of the child; (*d*) waiting, if possible, for nature to separate the placenta; (*e*) then expression of the afterbirth; and (*f*) the continued control of the uterus with the hand until the binder was applied.

Dr. W. CALWELL read a paper on Moot Points in the Medical Examination of Cases for Life Insurance. He discussed very fully the best methods of examination and some moot points in their bearing on life insurance, as heredity, hæmoptysis, proclivity to infectious diseases, intemperance, smoking, heart disease (murmurs, tension and rapidity of pulse), syphilis and gonorrhœa, appendicitis, and albuminuria.—The following members spoke on the above papers: Mr. MCFARLAND, Dr. KEVIN, Dr. STOREY, Dr. FULLERTON, Surgeon-Major PIKE, Professor BYERS, and the PRESIDENT.

The following specimens and cases were exhibited:—

Mr. T. S. KIRK: Two cases of Fractured Olecranon treated by immediate suture.

Mr. ROBERT CAMPBELL: Skiagram from a case of Club Hand with absence of the Radius.

Dr. W. CALWELL: A man who, as the result of an accident, had developed Heart Disease and wasting of the Muscles of one Thigh.

Reviews and Notices of Books.

Memory and its Cultivation. By F. W. EDRIDGE-GREEN, M.D. Durh., F.R.C.S. Eng. London: Kegan Paul, Trench, Trübner, and Co. 1897. Price 5*s*.

THIS book, which forms one of the volumes of the International Scientific Series, deals with a subject of considerable interest in a manner at once clear and reasonable. Dr. Edridge-Green employs a physiological basis for his analysis of memory, which he divides into "sensory" and "motor," whilst his discussion of the "faculties of the mind" based, as it avowedly is, on the phrenological systems is interesting but perhaps somewhat liable to misinterpretation. It may be questioned whether it is strictly correct to establish so many various "faculties" as is here done. Chapters on "Remembrance, Recognition, Recollection," "The Direct Connexion between the Motor and Sensory Memories," "Memory in the Lower Animals," "The Variations of Memory at Different Periods of Life," "Some Anomalous Conditions in which Memory plays an Important Part," "Pathological Conditions in which the Memory is Affected," and the "Localisation of Memory" lead up to the formulation of definite rules for the cultivation of memory which constitute the second part of the book. We may quote his conclusion as to localisation which strikes us as being somewhat absolute. He says (p. 250): "All sensory impressions, whether elaborated by the faculties of the mind situate in the cerebral hemisphere or by the sensory nerves, are permanently stored up in the optic thalami and constitute the sensory memory. All voluntary motor impulses, whether discharged on account of information derived from the sensory memory or when the equilibrium has to be maintained in a large part through a special source, the cerebellum, leave a permanent modification of the cells and fibres of the corpora striata, constituting the motor memory. After the faculties have discharged their functions in establishing the sensory and motor memories and the latter have reached the necessary intensity, they become directly combined and act, in a large part, irrespective of the consciousness of the individual when the appropriate stimuli are applied."

As regards the "cultivation of memory" many a man now of middle age may recall the schoolday instructions by teachers of "mnemonics," with some degree of scepticism as to the value of such instruction in facilitating the learning of subjects, whilst in his later career as a student he may

have had many a "memoria technica" impressed upon him as an aid to the recollection of anatomical relations and facts. Dr. Edridge-Green proceeds on a more scientific method, and gives his readers much valuable advice in expounding the twenty-two rules which he here formulates as of value to the strengthening of the memory. We presume that as a matter of fact most of us pursue these paths in our daily reference to the storehouse of facts and ideas which are associated one with another in our minds; but it is nevertheless not superfluous to have the prescribed methods of recollection systematised and explained in the lucid manner of the author. Indeed, we can well believe that few can carefully read this part of the book without a sense of greater security in the use of that most treacherous of instruments, the memory. We can heartily commend this book for perusal, as being both profitable and stimulating.

The Royal London Ophthalmic Hospital Reports. Edited by WILLIAM LANG, F.R.C.S. Eng. London: J. & A. Churchill. December, 1897. Vol. xiv., Part iii.

THE establishment of the Ophthalmological Society and the publication of the reports of that society have acted prejudicially on the reports of the Royal London Ophthalmic Hospital, for whereas the earlier volumes contained accounts of most of the interesting cases which fell under the care of the surgeons of the Moorfields Hospital, of late years, as might naturally have been anticipated, the most striking forms of disease have gravitated to the Ophthalmological Society and have been shown or described at its meetings, whilst the reports upon them have been impounded by the active secretaries, and have contributed to the value of their yearly volume. Still there are gleanings to be obtained by diligent workers even in the most carefully raked field, and we have the outcome of such gleaning in the present part of the fourteenth volume. It contains the following articles: 1. An Account of a Case of Metastatic Carcinoma of the Eyeball, by the curator of the museum of the Hospital, Mr. C. Devereux Marshall. The author appends a brief history of other cases which have been recorded, making a total of 30 eyes in 24 persons. In the majority of instances the primary growth was in the breast. As a rule it is noted that the tension of the globe was increased, but in a large number of cases it was normal. Although other organs are almost always involved Mr. Devereux Marshall recommends removal of the eye. 2. Concomitant Strabismus, the Accessory Adductors and Abductors, by Mr. J. Herbert Fisher. Mr. Fisher suggests reasons for believing that the superior and inferior recti aid in adduction, whilst abduction is effected by the external rectus and the two oblique muscles. 3. Notes on Glioma Retinæ, by Mr. C. Devereux Marshall. The cases reported include all that have occurred since those contained in the article written in the Hospital Reports by Mr. Lawford and Mr. Collins in 1890. Several of them have lived more than six years after the operation. The duration of life in fatal cases is given, and in addition the interval of time between the discovery of the growth and operation in fatal cases and cases of recovery, the site of recurrent growth, the shrinking of eyes affected with glioma, and the family history. The statistics of this and of the other articles by Mr. Marshall are remarkably well worked up and are very creditable to his industry. 4. The Operative Treatment of Lamellar Cataract, by Dr. E. C. Fischer, late senior house surgeon, and Mr. C. Devereux Marshall. The classification made by the authors is into two groups—(1) extraction and (2) needling—which they sub-divide into simple needling, needling followed by curette evacuation, and needling followed by section. It is interesting to note that simple needlings are by no means free from risk of suppuration, 8 eyes suppurating out of 123 operations, whilst 1 eye was excised for slow suppurative iritis in a case of needling followed by curette evacuation and 1 eye suppurated in a needling followed by suction, making in all 10 lost eyes in 260 operations, or a percentage of 3·84, a larger percentage than in needling after cataract operations, which only equal 1·02 per cent. 5. An Historical Review and Criticism of the Bacteriological History of Trachoma, with Personal Observations of Fifteen Cases, by Mr. Arnold Lawson—a very interesting article, giving the various opinions on the nature of the disease which have been maintained since the introduction of bacteriological investigation. Lastly, Mr. Devereux Marshall contributes a Descriptive Catalogue of Specimens in the Hospital Museum. The part contains also a Supplementary Catalogue of the Library of the Hospital.

LIBRARY TABLE.

A Manual of Botany. By J. REYNOLDS GREEN, Sc.D., F.R.S., F.L.S. Vol. II. London: J. and A. Churchill. 1896. Price 10s.—This excellent text-book on botany is based upon the well-known manual of the late Professor Bentley and this the second volume deals with the classification and the physiology of plants. In the first chapter the general principles which underlie the natural and artificial methods of classification are discussed. A short chapter is also devoted to the consideration of the individual systems and some of the more important ones, including those of Linnæus, Lindley, Bentham and Hooker, and others, are sketched out in tabular forms. The main part of this volume is devoted to the characteristics of the various classes and their sub-divisions, but a considerable amount of space has also been found for an interesting account of the general physiology of plant life. The book is well illustrated and will continue to take a high place among the text-books on this subject.

Analytical Key to the Natural Orders of Flowering Plants. By FRANZ THONNER. London: Swan Sonnenschein and Co. 1895. Price 2s.—This little book describes the principal features of the different orders of the flowering plants. The author has preferably chosen those characters which are visible to the naked eye at the time of flowering. The book is one which will no doubt be found useful by practical workers and should aid them considerably in the identification of plants.

The Principles of Bacteriology. By A. C. ABBOTT, M.D., Director of the Laboratory of Hygiene, University of Pennsylvania. Fourth edition. London: H. K. Lewis. 1897.—Less than two years ago we had occasion to pass a favourable criticism on the third edition of this work. The appearance of a fourth edition at so short an interval is evidence that it continues to find acceptance at the hands of the public for whom it is written. In its new form the book is enlarged, improved, and revised throughout. Professor Abbott has shown wisdom in the course which he has adopted, for it may safely be asserted that in the present state of knowledge any text-book on bacteriology must be out of date in two years and constant revision is necessary if it is to maintain its place as a text-book. We find no reason for any modification of the opinions which we have previously expressed as to the value of the work. Many of the illustrations are new and good descriptions of the micro-organisms of bubonic plague, influenza, and gonorrhœa have been incorporated in the text. The more important recent additions to our knowledge about the bacilli of typhoid fever and diphtheria receive due consideration. We can again commend the book to anyone beginning the practical study of bacteriology as a sound and useful manual which suggests even more than it directly teaches.

Il Piede e la sua Razionale Calzatura. (*The Foot and the Proper Form of Shoe.*) By Dr. F. BRUNELLI. Milan: Pietro Agnelli. 1898. Pp. 23.—In this pamphlet, which is reprinted from the *Giornale della Reale Società Italiana d'Igiene*, and is perhaps the most recent addition to the literature of the subject, Dr. Brunelli points out the defects of the ordinary shapes of shoe and explains how they are accountable for flat-foot, corns, bunions, ingrowing toenails, neuralgic pains in the feet and legs, varix, &c. In the normally shaped foot, such as that of a child six or eight years old, the great toe seems to turn slightly inwards, and the axis of its phalangeal and metacarpal bones when prolonged backwards passes through the centre of the heel. On the other hand, everybody knows that in the average adult foot the great toe is directed outwards, an unnatural position due to the use of ill-fitting shoes, and Dr. Brunelli proposes to avoid this deformity by giving the soles of shoes such a shape that when they are placed side by side the heels and all of the part from the ball of the toe to the extreme front of the shoe may be in contact without any approach to divergence of the inner margins from one another. He also discusses the shape of the front and outer edge of the sole, the width, square and broad toes, length, flexibility of materials, heels, the disadvantages of turning out the toes, &c. Although it will probably be long before his various recommendations become fashionable, Dr. Brunelli's book contains many useful suggestions which deserve to be known to medical men, parents, and others having the care of children, for distortions of the feet are more easy to prevent than to cure.

JOURNALS AND REVIEWS.

Archives de Physiologie. Publiées par MM. BOUCHARD, CHAUVEAU, et MARCY. 5me Série, Tome x., No. 2, 1898. Paris: Masson et Cie.—The articles contained in this part are the following: 1. MM. A. Dastre et N. Floresco, Pigments Hépatiques chez les Vertébrés. These observers divide the hepatic pigments in all classes of vertebrates into aqueous and chloroformic pigments; the former is soluble in water, contains iron, and has a continuous spectrum; the latter is soluble in chloroform, alcohol, and ether, but is insoluble in water and contains no iron. 2. Ergometric Studies, an Account of Some Conditions of Muscular Work in Man, by MM. André Broca and Charles Richet. Their experiments show first that the maximum of circulatory activity in the muscles takes place when repose succeeds to work (vaso-dilatation of Chauveau), and secondly that contraction is proportionately more vigorous and less painful as the circulation is more active. 3. M. Nikita Chodschajew, Enzymes: Are they Dialysable? He thinks they do dialyse but with extreme slowness. 4. M. J. Lefèvre: On the Evolution of the Thermic Topography of Homoiothermal Animals. Part 4: The Laws of Cooling. 5. Dr. J. L. Hoorweg of Utrecht: On the Physiological Action of the Closure of a Galvanic Current. 6. M. J. P. Morat: On the Transforming Power of Nerve Cells in Regard to Stimuli. 7. MM. A. Dastre and N. Floresco: On the Hepatic Pigments of Invertebrata. In the higher molluscous forms the pigments seem to be similar to those of vertebrates. The lamellibranchs possess the aqueous and ferruginous pigment or ferrine and whilst the anodonts have a chloroformic pigment resembling that of vertebrates named cholechrome with continuous spectrum the great majority, such as the oyster, muscle, and pecten, have the pigment named hepatochlorophyll, with four bands in the spectrum. In crustacea the pigments resemble those of vertebrates. 8. M. P. Yvon: On the Elimination of Sulphur and Magnesia. 9. On the Limits of Absorption of Carbon Monoxide by the Blood, by M. N. Gréhant. 10. On Duodenal Digestion of Albumin, by MM. J. Gachet and V. Pachon. These observers find with Schiff that in the living and fasting dog the pancreatic juice is not able to digest albumin experimentally introduced into the duodenum, but after ligature of the pancreatic ducts albumin introduced into a loop of the duodenum ligatured above and below is in large part capable of being digested. 11. On the Re-absorption and Elimination of Bilirubin, by MM. E. Wertheimer and L. Lepage. 12. The Muscular Work and the Rhythm of the Heart, First Memoir, by MM. J. Athanasiu and J. Carvalho. 13. On the Internal Secretion of the Spleen, by MM. J. Gachet and V. Pachon. The Researches of these authors show that the spleen produces a kind of ferment which in traversing the pancreas converts protrypsin into trypsin. 14. The Action of Suprarenal Extract on the Heart of the Rabbit, by M. E. Bardier. 15. On a Partial Decomposition of Chloroform in the Organism, by MM. A. Desgrez and M. M. Nigloux. 16. Contribution to the Study of the Chemical Actions of Pathogenic Microbes, by MM. L. Hugounenq and M. Doyon. 17. Experimental Researches on Diphtheria Toxin, by MM. Enriquez and Hallion. 18. Contribution to the Study of Osseous Regeneration on the Internal Prothetic Apparatus, by MM. M. Doyon and Cl. Martin.

Analytical Records
FROM
THE LANCET LABORATORY.

VEJOS AND FLUID VEJOS.

(VEJOS LIMITED, 143, WEST HAM-LANE, WEST HAM, E.)

"VEJOS" is described as a new vegetable extract obtained by extracting the protoplasm and proteids of certain vegetable cells with a weak solution of lactic acid at a moderate temperature. It is said that this treatment results in the gradual solution of the nitrogenous constituent of the cell, so that the albumin combining with the lactic acid forms an albuminate. At the same time other substances are extracted resembling the crystalline nitrogenous extractives of muscle. Salts, of course, such as the phosphates, would also enter into the solution. Before considering further the merits of the preparation as a nutrient we may give at once the results of our own analysis of this compound. They are as follows: Insoluble organic matter (cellular fibre), 3·45 per cent.; alcohol coagulum (albumins), 1·76 per cent.; alcohol precipitate (peptones, &c.), 17·59 per cent.; soluble nitrogenous substances, 21·02 per cent.; carbo-hydrates, 17·09 per cent.; soluble mineral matter, 11·30 per cent.; insoluble mineral matter, 2·77 per cent.; moisture, 25·02 per cent. The total soluble matter in the moist extract amounts to about 69 per cent. To the taste "Vejos" is barely distinguishable from good meat extract and, as the foregoing analysis shows, it presents practically the same chemical composition, with the additional advantage of a notable proportion of easily-digested carbohydrates. There can be little doubt, therefore, that "Vejos" is physiologically as valuable as a good meat essence. The analysis indicates it to be a powerful nutrient because of the excellent relative proportions of nitrogenous, carbonaceous, and mineral matters, and the condition in which these exist should favour their assimilation. "Fluid Vejos" is said to have for its basis the "Vejos" extract with the addition of 15 per cent. of a cereal treated in the same way as "Vejos" itself. According to our analysis it presents *chemically* very little difference in composition. The results were as follows: Alcohol coagulum (albumins), 1·20 per cent.,

alcohol precipitate (peptones, &c.), 20·44 per cent.; soluble nitrogenous substances, 18·42 per cent.; carbohydrates, 18·15 per cent.; soluble mineral matter, 13·68 per cent.; insoluble mineral matter, 1·92 per cent.; moisture, 26·19 per cent. The proportion of total soluble matter is somewhat less than in the previous preparation. Both preparations are free from objectionable preservatives.

AERATED WATERS.

(THE DORSET SODA-WATER COMPANY, LOWER BOND-STREET, WEYMOUTH.)

A point of first importance in the preparation of aerated waters is, of course, the employment of water of irreproachable quality. In this respect the preparations submitted to us by the above manufacturers were satisfactory. In the mineral waters we found no evidence of organic impurity. Further, they are prepared on the lines laid down in the Pharmacopœia. Thus the lithia water was found to contain 9 grains of the carbonate per pint; potash water 36 grains of the bicarbonate per pint; the soda-water 16 grains per pint of the bicarbonate (in this instance half B.P. strength). The alkalinity of the seltzer water was equal to 4 grains per pint of bicarbonate of soda, and the common salt amounted to a little over 6 grains per pint. With these preparations were submitted to us also specimens of lemonade, ginger ale, and an effervescing beverage termed "ozonine." All were pleasantly sparkling and quite bright. These beverages are evidently prepared with care.

VOLINE.

(S. WHOHLE, 237, SHAFTESBURY-AVENUE.)

Voline is described as an extract of certain tropical herbs which, when added in definite proportion to crude whisky, effects the precipitation of the injurious "substances" therein. We have tried several experiments in the direction indicated, but we are quite unable to confirm the statement that this vegetable extract has any other influence than that of imparting a foreign flavour to the spirit.

HEALTH FOODS.

(THE SANITAS FOOD CO., BATTLE CREEK, MICHIGAN. AGENCY: THE LONDON FOOD CO., 451, HOLLOWAY-ROAD, N.)

There are some novel and interesting dietetic preparations in the list of this company. They consist chiefly of foods prepared from cereals and from nuts. "Granose flakes," for example, consist of light brown flakes resembling potato chips, which on analysis present the composition of wheaten flour of superior quality—that is, flour in which all the essential food constituents are retained. The nitrogen amounted to 2·14 per cent., which is equivalent to a total of 13·37 per cent. albuminoids. The moisture amounted to 12·02 per cent. and the mineral matter to 2·09 per cent. The microscope showed the presence of starch granules highly distorted by cooking, probably by steam. The preparation is undoubtedly nutritious, not merely on account of its composition, but also because the constituents are partially prepared for the digestive process. "Nuttose" is an oily looking compound prepared from nuts. The fat is in a finely divided state amounting to an emulsified condition, while the carbohydrates and nitrogenous matters are previously treated so as also to render them easy of digestion. "Bromose" exhibits a composition balanced in accordance with physiological requirements. It is prepared in the form of tablets resembling caramels. It possesses a pleasant nutty taste, and here, again, the constituents are in a state favourable for assimilation. Lastly, the preparations submitted to us included "Caramel Cereal," which is offered as a substitute for tea or coffee. It consists of carefully roasted wheat and resembles coffee in colour and appearance and in the size of the grain. It yields on steeping in boiling water a rich infusion with aromatic coffee-like taste, which contains the nutritious constituents of the wheat berry. The preparations are of interest as indicating the steps which are taken to produce on a commercial scale foods in which the nutritive value is increased by the processes adopted.

"PERFECTED" COD-LIVER OIL.

(ALLEN AND HANBURYS, PLOUGH-COURT, LOMBARD-STREET, E.C.)

According to our examination this preparation justly merits its title. It is quite free from nauseous flavour and smell and is evidently well tolerated, since no objectionable eructations occur after its ingestion. The oil is remarkably bright and clear and has a slightly acid reaction. It possesses as far as possible all the qualities which render cod-liver oil not disagreeable to take. This is the result of paying great attention and care to the process of refinement and preparation.

BENSOLYPTUS.

(SCHIEFFELIN AND CO., NEW YORK. LONDON: POTTER AND SACKER, 7, FOWKES-BUILDING, GREAT TOWER-STREET, E.C.)

Bensolyptus is an agreeable and effective combination of pleasant antiseptics. It is a clear, colourless liquid possessing the delicate aromatic smell of gaultheria. It is alkaline to test-paper. On adding hydrochloric acid and cooling, a crystalline precipitate separates consisting of benzoic and boric acids. It can be employed as an agreeable mouth wash, and also administered to check fermentation in the stomach and intestinal canal. It should be useful also in the treatment of catarrhal inflammations of the mucous membranes. In fine it may be considered to be a mild yet efficient and non-irritating antiseptic.

SPECIAL BLEND OLD SCOTCH WHISKY.

(ROBERT CAIN AND SONS, LIMITED., MERSEY BREWERY, LIVERPOOL.

Judicious blending is largely responsible for the satisfactory character of whisky, and in addition, of course, the spirit should be matured. Some evidence, as in the present instance, of both steps being taken may be gained from the results of analysis, but a discriminating taste is probably the best guide. The analysis of the above whisky was as follows: Alcohol, by weight 40·05 per cent., by volume 47·40 per cent., equal to proof spirit 83·07 per cent.; extractives, 0·28 per cent.; mineral matter, 0·01 per cent.; acidity equal to acetic acid, 0·036 per cent. The whisky is free from excessive colouring matters and extractives. The taste was quite in accordance with the statement that the spirit had been matured, and it is therefore of a wholesome character.

New Inventions.

A NEW CLINICAL THERMOMETER.

WE have received from Messrs. Maw, Son, and Thompson a clinical thermometer which by a simple device permits of the rapid readjustment of the index after an observation is taken. A comparative trial with a thermometer of the ordinary pattern soon establishes the superiority of the new instrument in this respect, for whereas to procure the return of the index to the normal after the mercury has been raised only a few degrees requires in the case of the former many and repeated vigorous shakes of the thermometer, with the latter one slight shake, or at the most two, accomplishes the end desired. Nor does such facile return of the index in the least affect the accuracy of the instrument as a recorder of temperature—indeed, our personal observation shows that it is not only reliable in this respect, but delicate and rapid in record. The improvement consists simply in the formation of a sort of reservoir for the index by means of an expansion of the tube above the bulb. As many a thermometer has been sacrificed in ill-directed efforts to shake down the index, this new invention may prove to be as economical as it will doubtless be a saving of both time and temper.

THE LANCET.

LONDON: SATURDAY, APRIL 16, 1898.

Is it possible to hope that the General Medical Council has held its last discussion on the principles which should regulate the grave step of giving to midwives a legal status? Either at the instigation of the Government of the day or on its own initiative it has for the last twenty-five years spent a great deal of its time and of the money of the medical profession in such discussions. For a quarter of a century this question has been debated in one form or another by the Council till at last that body has with practical unanimity formulated a set of fundamental principles which, if accepted, should keep the council-chamber clear of this thorny subject for the future, save, perhaps, when it may be asked to say categorically whether a given Bill sufficiently embodies the principles on which alone such a measure could be enacted in the interest of the public health, which is the chief interest.

Close observers of what took place in the General Medical Council last week must have been very much struck with the course of procedure. Ostensibly the discussion was concerned with the report and recommendations of the committee on the Midwives Registration Bill, which laid down certain principles which our readers may study for themselves in the columns of THE LANCET. The chief of these principles were as follows:—That midwives should henceforth be registered and subject to rules of practice to be drawn up by a Midwives' Board consisting of medical men elected in England by the three medical corporations and a chairman appointed by the Lord President of the Council; that all the rules of the midwives' board should be subject to the approval of the General Medical Council; the claim to admission to the register was to be on the ground of previous practice as a midwife, or of a certain amount of training and examination to be determined by the midwives' board; that midwives were to be restricted to attendance on natural labour and that on the occurrence of anything unnatural or unsatisfactory in the mother or child they were to apply for the assistance of a registered medical practitioner; that the local sanitary authority should be required to appoint as many practitioners in every locality for this purpose as should agree to be so appointed and pay them a proper fee; and that no woman should be allowed to practise as a midwife, habitually and for gain, unless she were registered, such registration to be annual and for a nominal sum. An excellent clause providing that no woman or any association of persons founded for the purpose should, either habitually or for gain, attend or undertake to attend on a lying-in woman, unless the person attending and all the members of any association providing such attendance were registered according to the provisions of the Act was included in the recommendations of the committee as well as one to prohibit the employment of unregistered substitutes by registered midwives. A clause prohibiting the granting of certificates of stillbirth and other medical certificates was very properly one of the recommendations of the committee. The committee recommended the insertion of a clause forbidding the granting of certificates in midwifery by any person or body not legally authorised to grant them. It was also provided that as the time of the Council would be occupied, at first considerably, by its duties under any such Act it should be reimbursed for any expenditure on this account.

Such were the principal recommendations of the committee which the Council on Tuesday, April 5th, resolved to discuss *seriatim*. On the following day, after the passing of a resolution expressing sympathy with the family of the late President in their and the Council's loss and the acceptance of a slight amendment to the recommendation of the committee as to the definition of a midwife, Dr. MACALISTER asked that he should be allowed to make a statement and certain motions in substitution of the general considerations and recommendations of the committee and that those resolutions should constitute the reply to the Lord President. These resolutions were practically those of the committee, as he candidly admitted. There was, however, one important exception which constituted a veritable amendment. Basing the suggestion on a remark in a speech made by Sir WILLIAM GAIRDNER on the previous day he proposed that midwives instead of being *registered* should be *licensed* and that the licence should be issued by the local sanitary authority, should be renewable yearly, and should be revocable at any time in case it should be proved that the holder had infringed any of the prescribed regulations. This suggestion was immediately accepted both by the President and the Council together with the motions attached to it. As far as these latter went, as we have said, they were practically those of the committee. It was amazing to see the rapidity with which the substitution of licence for registration seemed to dissipate all other opposition and the motions in substitution of those proposed by the committee were quickly accepted even by members of the Council who had previously refused to entertain the similar proposals of the committee. Whatever the members of the committee may have felt in regard to the turn of the discussion they did not allow their feelings to affect their votes, and the reply, as formulated by Dr. MACALISTER, was adopted unanimously by the Council. Unfortunately one or two of the recommendations of the committee were left out in the cold, particularly the one requiring the local sanitary authority to appoint (and, of course, pay) medical practitioners to whom the midwives might apply. Mr. CARTER could see in this reasonable proposal nothing so much as a little trades' unionism which would excite offence in Parliament. Another rejected suggestion of the committee was the one intended to prevent illegal practice by association. It is certainly, we think, to be regretted that the Council dealt so vaguely with the vital question of the midwives' board as "some central body" without any suggestion as to its constitution, on which everything turns; and it seems a pity that in disregarding the lead of it committee the Council failed to express

itself on the subject of medical certificates and certificates of stillbirths.

It would seem therefore that some of these changes are not for the better and may cause much more trouble and loss of time on future occasions. But the discussion of 1898 should as far as it goes be considered final. It accepts the fact that there must for the present be midwives; it proposes to stop the deadly practice of untrained midwives by prohibiting practice as well as the false use of titles; it recognises the necessity for the practical supervision of midwives by the medical profession and the authoritative regulation and restriction of midwives' practice. It is impossible for the General Medical Council to approve of legislation on this subject except on such lines. The substitution of a licence for registration may not have the same magical effect on the profession that it had on the Council; but it does tend, and very properly tend, to minimise the recognition of a class of persons who ought in the evolution of society to disappear. The Council has defined its position and the Privy Council cannot be at any loss in the future to know the attitude of the General Medical Council towards this legislation. Under the circumstances we may confidently hope that Parliament, if the Bill should come to a second reading, will see its way to oppose it in its present form. If its promoters wish to stop puerperal mortality at the hands of midwives they, too, will accept the principles unanimously laid down by the General Medical Council or abandon attempts at legislation which would practically leave things where they are.

THE question regarding the Vaccination Bill raised by Mr. HUTCHINSON in a recent letter to us[1] is one which demands serious consideration. He recalls the fact that the Royal Commission on Vaccination advised that State payment for successful vaccination should no longer be made exclusively to those holding appointments, but that under certain conditions all medical men should have a right to claim such fees, and he points out that the Bill gives no effect to this advice.

It is well known that the Commission laid great stress on the comparative absence of friction or difficulty attending the administration of the Scottish Vaccination Act. The recently published report of the Registrar-General of Scotland for the year 1896 shows less than 3 per cent. of vaccination default, while in England in 1894 the cases not accounted for had risen to 19 per cent., and the percentage is now, no doubt, even higher. Clearly it is most desirable that whatever is good in the Scotch system should be adopted south of the Tweed. The Commission's recommendation of domiciliary vaccination is based on the fact that in Scotland, excepting in two or three of the largest cities, public vaccination stations are practically unknown. Mr. CHAPLIN has followed the Commission to a certain length here and then he has abruptly stopped. Nearly all vaccinations in Scotland are performed by the family medical attendant, and the absence of friction which distinguishes the whole procedure is probably in great measure due to that custom. Some time ago[2] we published a series of articles dealing with the relations of the medical officer of health to the private practitioner and we then took occasion to point out how judicious it is for the public official, especially when engaged in private practice, to avoid needless domiciliary visitation in houses where patients of his brethren in practice are suffering from infectious disease. With regard to vaccination the necessity would probably be even greater, for here there would be not merely an inspection of the house but the performance of a small operation on one of the inmates. The Bill takes no cognisance of this difficulty. It proposes domiciliary vaccination, but leaves out the private practitioner. The Scotch system, however, has defects of its own. The private medical attendant is not under that system paid by the State, his work is not supervised by the State, and he does as he pleases with regard to the amount of vaccination of every individual case. Whatever be the case in Scotland, where opposition to vaccination is much less keen, in England such a system would almost certainly result in some lowering of the efficiency of vaccination in consequence of frequent parental pressure towards diminution of the area or number of vesicles. We therefore appear to have arrived at this position, that if the advantages of the Scotch system are to be obtained for England the private practitioner should be very generally employed where domiciliary vaccination is in question, but that if its disadvantages are to be avoided his work should be State-paid and State-inspected. If the Local Government Board decides that a particular area and number of vesicles are necessary for reasonable efficiency and duration of protection, then it should have the right to refuse payment for any case which does not fulfil the required conditions. Here, however, an important practical difficulty arises. The work of perhaps 4000 public vaccinators may in some degree be supervised by the Board's inspectors, but if every medical man may claim fees how is his work to be supervised? At present the public vaccinator has usually a large number of cases in his books and sampling is comparatively easy, but if a practitioner performs only a dozen or two vaccinations in a year, and if in a given community there are to be, say, fifty practitioners sending in returns instead of one or two, the problem of inspection becomes at once a very difficult one. It seems to us that if the central authority cannot add sufficiently to its staff, then in many places the medical officer of health might be made the inspector of vaccinations—at least where he is not engaged in general practice. He is already in relation with the Local Government Board and the points of contact would only be increased, while he himself would be under supervision by the Board and its inspectors in this department of his work. It is not to be assumed that an undue amount of his time would be taken up in this way. Going about continually in his district he could do a great deal of casual inspection which would require special visits on the part of an officer having no other work in hand.

It may well be argued that if as a result of domiciliary vaccination any large transference of work were made from public vaccinators to private practitioners some slight loss of efficiency might follow and that, other things being equal, skill and dexterity go hand-in-hand with experience and that this holds good even in so simple an operation as

[1] THE LANCET, March 19th, 1898, p. 813.
[2] THE LANCET, Jan. 19th and 26th and Feb. 9th and 16th, 1895.

vaccination. Looking to the very high "insertion success" attained by some public vaccinators, it is probable that, taking a large average of cases, a private practitioner aiming to produce four vesicles will fall short of his endeavour somewhat more frequently than a public vaccinator. On the other hand, a large amount of the vaccination of the country is already done by non-official medical men, and here, under even a minimum of Government supervision, there would be an improvement in practice. A residuum of cases would still, no doubt, exist as to which no fee would be claimed or paid, the necessary standard of efficiency not having been reached, perhaps not even attempted or desired.

In what we have said here we do not for one moment suggest that there should in future be no difference between the position of the public vaccinator and that of the private practitioner. The work of the latter would be merely complementary or supplementary to that of the former. If we understand the purpose of the Government aright they do not intend to abolish vaccination stations but only to allow a choice on the part of parents. At the station the public vaccinator would have the sole control. Under Clause I. (2) of the Bill it would be only the public vaccinator whom the parent would have a right to call on for domiciliary vaccination, and under the succeeding sub-clause it would be the public vaccinator who would be supplied with lists of children reaching the age of nine months without having been vaccinated and whose homes it would be his duty to visit in order to offer vaccination with glycerinated calf lymph. For all such work he must, of course, be properly remunerated. If some scheme such as is sketched here were brought into operation it is not unlikely that the work of infantile vaccination would be largely accomplished within the first nine months of life, and that a not inconsiderable part of it would be done by private practitioners, either at the child's home or at the medical attendant's consulting-room. But this, we take it, is exactly what the Government and the Commission and the public desire. The whole question must be looked at primarily from the point of view of the public weal, and we see much force in Mr. HUTCHINSON'S contention that the total numbers of the vaccinated would in this way be increased and the reluctance of mothers to submit their children to vaccination be greatly diminished. One thing, however, should be kept clearly in view. No such system of infantile vaccination would obviate the necessity for the Government dealing with the question of revaccination. Systematic vaccination at twelve years of age is essential under whatever scheme the earlier protection may have been obtained. And the very fact that some diminution of "insertion success" may take place in primary vaccination forms another argument in favour of revaccination being regularly carried out as a duty of the State to the individual and to the community.

THE Ninth International Congress of Hygiene and Demography was opened at Madrid on Sunday, April 10th, in an extraordinary environment. Madrid is at the present moment the centre of the highest political and patriotic excitement, for whether or not the outcome of President MCKINLEY'S voluminous message be the declaration of war the prestige of Spain is seriously assailed by the fact that the United States should have thought well to level at her so direct a threat. The national characteristic of the Spaniard being the reverse of humility it is unlikely that Spain will accept dictation without remonstrance, so that whatever the eventual issue Madrid will be for some time, as it is now, a troublous place for the holding of a scientific Congress. Our Special Correspondent reports that the preliminary business of the Congress was transacted laudably under the circumstances and it is obvious that every attempt is being made by the sorely tried Government to welcome the international representatives of public health in a way befitting a great nation. For this gallantry under difficulties we are certain all our readers will share our sympathy.

It is sincerely to be hoped that the proceedings at the ninth Congress will be definite in their object and perhaps a little more limited in their scope than they have hitherto been. Such subjects as hygiene and demography are so all-engrossing that it is easier to allow the debates to become diffuse than to keep them concentrated upon useful points. If certain fixed questions of prime importance were to be made the subject of set discussion by accredited representatives, and if such debates had their outcome in resolutions which could afterwards be submitted to full Congress for voting, the cause of international sanitation would be really advanced. Hitherto the work done at these congresses has been too scattered in its aim to be of the first benefit to the world. The very large scope is not without advantages but the advantages were more solid in earlier days. When the congresses were first instituted it was necessary that the various nations who attended them should compare notes all along the line before attempting to draw conclusions. The plumbing of one nation, the bacteriology of another, the sewage disposal of a third—all required to be brought to the general knowledge of the delegates before it could be determined what was common property and what were the universal desiderata. But the earlier congresses have more or less settled these things and for the future leisure should certainly be found at these meetings to thoroughly discuss, by the mouthpiece of accredited delegates, a few questions of undoubtedly prime importance—subjects upon which all civilised nations desire enlightenment. The unanimous advice of a meeting of experts from all parts of the world might sway Cabinets in their international relations; a brilliant paper read to one section of an international congress—possibly in a language not familiar to the majority of the audience—runs a risk of falling stillborn from its author's lips.

In THE LANCET we have specially recognised the utility of congresses as a means of spreading a knowledge of sanitary laws, even when we have seen that this utility might be increased, and we have in particular from the very first appreciated the work of the International Congresses of Hygiene and Demography. The first of these was held at Brussels in September, 1876, and then, at a time when the importance of the movement was hardly recognised by all, we dispatched a

special correspondent with a mission to describe in these columns the scientific proceedings at the meeting and the exhibition of hygienic appliances. At all the subsequent congresses save one we have been represented by a correspondent who has frequently taken an active part in the debates and who has been on several occasions selected as the spokesman of the entire English delegation, while he has always been responsible for sending to us the longest and fullest descriptions published by any English journal. We have, in short, taken every pains to display our belief in the value of these congresses. We mention these things in spite of their egotistic appearance because it seems to us that some of the sanitarians of this country do not regard the International Congresses of Hygiene and Demography with sufficient seriousness. For how else are we to explain the absence from Madrid without notice of three English members of the Permanent Committee? These gentlemen must have thought that their abstention, with the loss to English organisation so entailed, was of no consequence. We think otherwise, and much regret that our country has been placed under a cloud on the very occasion of all others when we have a right to expect to shine—namely, at an international assembly concerning itself with public health.

Annotations.

"Ne quid nimis."

THE SMALL-POX EPIDEMIC AT MIDDLESBROUGH.

ALTHOUGH unhappily cases of small-pox continue to be notified at Middlesbrough at the rate of from 30 to 40 per week, this is so marked a diminution on the returns of a few weeks back that the epidemic may be said to be declining and it will, we hope, shortly be at an end. There has been issued by the Jenner Society an instructive pamphlet upon the outbreak prepared by Dr. F. T. Bond of Gloucester. In this he points out that the epidemic commenced towards the end of November and was of such magnitude that from Nov. 22nd, 1897, to March 21st, 1898, there had been 1200 cases with 153 deaths. Within the same period in 1895–1896 there were at Gloucester about 850 cases with 212 deaths. Observing that it is, of course, impossible to say what the precise fatality of the Middlesbrough epidemic will be, Dr. Bond, in order to carry out the comparison with the Gloucester outbreak as fairly as possible, deals statistically only with those cases which were notified up to the end of February—namely, 686—of which 97 were fatal, or 14·1 per cent. With the same number of cases (686) at the same stage of the Gloucester epidemic there were 172 deaths, a fatality of 25·0 per cent. He then proceeds to analyse this difference in fatality by reference to the condition as to vaccination of those attacked. At Middlesbrough 581, or 84·7 per cent., had been vaccinated in infancy; at Gloucester 368, or 55·5 per cent. But the fatality in this class was almost the same in the two places, the "vaccinated" deaths being 48 in Middlesbrough, or 8·2 per cent., and 32 at Gloucester, or 8·7 per cent. Similarly, of the 105 "unvaccinated" at Middlesbrough 49 died, or 46·6 per cent.; and of the 318 "unvaccinated" at Gloucester 140 died, or 44 per cent. Clearly, then, the excess of deaths in the Gloucester outbreak as contrasted with that of Middlesbrough was due to the greater number of unvaccinated subjects attacked by small-pox. The contrast is pushed still further by analysing each of these series in respect to age-incidence. In Middlesbrough 95 per cent. of the vaccinated who were attacked were over ten years of age (nearly 70 per cent. between twenty and sixty years), whilst less than 5 per cent. were under ten years. In Gloucester more than 98 per cent. of the "vaccinated" attacks were in subjects over ten years of age (73 per cent. between twenty and sixty years) and less than 2 per cent. were under ten years. As regards the unvaccinated, 90 per cent. of the attacks at Gloucester were in subjects under ten years of age; in Middlesbrough less than one-third of the unvaccinated were under ten years, but only 2·8 per cent. were between twenty and sixty years of age. The Middlesbrough epidemic is therefore analogous to that at Warrington in 1892–93, having been "mainly one of small-pox occurring in adolescents and adults who have been vaccinated in infancy, and have so far lost the full benefit of the protection they then received. But they were still sufficiently protected to make the mean fatality of the whole group only 8·2, which is mainly due to the high fatality amongst those who were attacked between twenty and sixty years of age." Dr. Bond points out that Middlesbrough has been wrongly styled a "well-vaccinated town," for although the latest vaccination returns (of 1896–97) showed a default of infantile vaccination of only 7·2 per cent., yet the census instituted by the board of guardians in February revealed out of an enumerated population of 69,525 as many as 653 unvaccinated children between the ages of three months and fourteen years, and therefore probably at the commencement of the epidemic as many as 1000 to 2000. Nor is there any evidence that as regards revaccination its adolescent and adult population were any whit better off than any other town. In truth this outbreak comes as it were to demonstrate once more the fact that small-pox is not to be warded off by infantile vaccination alone and that revaccination is just as much called for if the disease is to be kept in check once the infection has gained a footing. What has happened to Middlesbrough may happen to any town in the kingdom, provided that facilities for personal infection exist in like abundance; and if reliance were to be placed on isolation and "sanitary police measures" alone the cost to the community would be enormous, since no place is prepared to deal with small-pox without the aid of vaccination and revaccination.

THE VICTORY IN THE SOUDAN.

THE present Government has unquestionably had during its term of office its full share of trials, political perplexities, and anxious problems on all sides. The state of India, with its famine, plague and pestilence, and the war on the frontier, which was attributable to the fact not that we would not leave the tribes alone but that they would not leave us alone; the paralysis of China and the dismemberment of that vast Eastern Empire by the Western Powers, together with entanglements, wars and rumours of wars in Eastern, Western, and Northern Africa,—these have given the India and Foreign Offices but little rest of late. If our political difficulties and embarrassments have come together so have our successes. The promised termination of the war with the border tribes on our North-west Indian frontier, the successful result of our diplomacy in China and the far East, and the news of the great and brilliant victory in the Soudan, by which the Mahdist power in North Africa has been broken and a large portion of the Khalifa's army practically annihilated, have followed one another with dramatic rapidity to the great relief of the present Government. The campaign in the Soudan has been designed with great strategical, and carried out with equally great tactical, ability and success. The military situation in the

Soudan immediately prior to the successful attack of the Anglo-Egyptian force on Mahmud's entrenched position was one of unusual interest, because Mahmud could neither advance nor retreat without the gravest consequences to his force. The battle of Atbara has been attended with an estimated loss of some 3000, and all the important Emirs, except Osman Digna, have been slain or taken prisoners, including among the latter Mahmud himself. The loss on the Anglo-Egyptian side amounts to upwards of 500 killed and wounded. The medical arrangements appear to have been extremely good, and as there was ample time before the attack on the Khalifa's force took place everything had been well thought out and provided. The work of stripping the battlefield of its wounded was a hard one, but it was performed as expeditiously as possible. The sick and wounded were first of all cared for at Ras Hudi. There is excellent hospital accommodation at Atbara Fort and on the banks of the Nile, and the last convoys of sick and wounded arrived at Atbara on April 11th after a trying journey which was admirably conducted and borne. They will be transported thence by the best and easiest of all transport for wounded men—namely, along the Nile in large boats with sunproof coverings—to the base hospital at Gennanetti. The sick and wounded have received every comfort and attention which medical care and skill could devise and it is allowed on all hands that the arrangements for affording surgical succour and aid on the field and those for the hospital service generally were most satisfactory. The wounded, according to the latest accounts, are all doing as well as could be expected. We have only to add our congratulations to those which Sir Herbert Kitchener has already received for himself and the brave force under his command, supplemented by the congratulations which we have to offer to the medical officers of the British and Egyptian services for the hard and successful work which they have accomplished.

THE RIGHT TO PRACTISE IN NATAL.

THE *Transvaal Critic* of Feb. 11th is much exercised about what it calls a medical ring. After some cheap sneers about "butchers" and "doctors paying the funeral expenses of their 'clients,'" the writer proceeds to take to task the Medical Council of Natal, a body constituted by Act 35 of 1896, which Act gave the Medical Council the right to frame certain regulations for the practice of medicine and surgery in Natal. According to this Act, "no person shall be permitted to practise or be registered as a medical practitioner unless he would be entitled to be registered in Great Britain or shall have obtained a licence from the Colonial Secretary on the recommendation of the Council." The Act goes on to say that to get such a licence the person desiring it shall provide proof of identity, authenticity of diploma, and of his right to practise elsewhere under such diploma. Now, according to the *Transvaal Critic*, the Medical Council have in their regulations on this Act altered the words "right of the holder to practise elsewhere under such diploma" into "submit a declaration that they are entitled to practise as qualified medical practitioners in Great Britain." Apart from the view that in all probability a "regulation" of the Medical Council cannot and does not override the Act of the Colonial Government, such a regulation would not in the least prevent "any fully qualified French or German doctor who may not have also practised in Great Britain from practising in Natal." The *Transvaal Critic* says it will. Any qualified—or, for the matter of that, unqualified—person may practise in this happy land of England. Any person, however, may not be *registered*. If the Medical Council of Natal wish to prevent any one who has not a British registrable qualification from practising in Natal let it say so and take steps to gain its wish. It is, of course, a natural enough, though we think a mistaken, view. The Act quoted is narrow enough to keep out the quack, it is far more stringent than anything we have over here, and the Natal Medical Council might well bear in mind the objections raised when it was proposed to make all English-speaking practitioners in Italy undergo the same examination as their Italian *confrères*.

SCHOOL BOARDS AND MEDICAL CERTIFICATES.

THE West Bromwich School Board met on April 5th, when the question of medical certificates came to the front. Mr. N. L. U. Somers, a medical practitioner, moved the following resolution: "That having regard to the fact that the parents or guardians of a child unable to attend school through illness comply with their legal obligations by furnishing a certificate to that effect signed by any duly qualified medical practitioner this Board considers such certificate as sufficient evidence of a child's inability to attend." Mr. Somers cited a case where a medical man certified a child as suffering from scholiosis (*sic*). This child was then sent to the medical officer of the Board, who had previously examined her and reported in favour of her attending school. He said that he did not examine the child a second time, that he presumed the disease really was "scoliosis" but that he would examine her again if they wished. The resolution was carried eventually by six votes to three, two members not voting. This is as it should be. Every qualified medical man is not immaculate any more than every cleric or every lawyer, but in any case he knows better whether a child is able to attend school than does a layman, and we suppose that a layman is the one who decides whether a certificate shall be revised by the Board's medical officer or not; erratic spelling is not necessarily a proof of professional incompetency. School boards are curious bodies and seem to mistrust everyone with whom they come in contact unless they receive payment from funds administered by the Board and extracted from the pockets of the ratepayers.

AN ALLEGED OUTBREAK OF OYSTER-BORNE ILLNESS.

IN a leading article in THE LANCET of April 9th we insisted upon the fact that oyster-borne enteric fever was by no means the only danger to be feared from the consumption of sewage-polluted oysters, and we drew attention to an outburst which occurred in France, in which out of 14 persons who consumed polluted oysters obtained from Cette, 12 suffered from gastric disturbances and 2 from enteric fever. Curiously enough Mr. Edward Sharp, the medical officer of health of Truro, relates in his annual report, which we have just received, an instance involving 7 persons who sat down to a supper at which uncooked oysters were partaken of. Out of these 7 persons, all of whom ate oysters, 4 suffered from gastric symptoms of more or less severity, 2 subsequently developed enteric fever, and the remaining one, who by the way ate oysters freely, escaped unhurt. The evidence against the oysters is, as Mr. Sharp observes, very strong, though there would apparently remain the objection which has probably been discounted, but which is not referred to in the report before us, that the 6 persons attacked ate or drank of something which was not partaken of by the person who remained well. However, oysters derived from the same laying as were those under suspicion were sent to Dr. Kanthack for bacteriological examination and we are told that "they showed fair evidence of sewage and filth contamination." The oysters here in question were derived from near Malpas, in the Truro River, and we see by reference to the Local Government Board report on Oyster Culture in Relation to Disease that in the opinion of the inspector who conducted this part of the inquiry "there is no escape from

the conclusion that oyster layings near Malpas and in the upper waters of the reach below it must be liable to contamination" and that "at Malpas there are slop-water sewers from about twenty houses, and also a privy, discharging themselves dangerously near one of the ponds and some of the small layings to which reference has already been made." We note, however, with satisfaction that the sanitary committee of the Truro Corporation has recommended that the laying down of oysters on the Malpas foreshore, even for temporary purposes, should be prohibited; but it is to be regretted that the prohibition was not made and carried into effect when the Local Government Board report was issued and hence before the drastic experiment here referred to had been performed.

THE TREATMENT OF TETANUS.

OUR Rome correspondent writes, under date April 3rd "From Palermo I hear that Dr. Francesco Supino, on the veterinary staff of the cavalry regiment quartered at Monferrato, having got none but negative results from the Tizzoni antitoxin in treating a horse for tetanus, had recourse to serotherapy. He took the serum from a horse that had been cured of tetanus and on the 14th ult., at 4 P.M., he made a first injection of 100 grammes of the serum, introducing it subcutaneously at the neck and suspending all other treatment of the suffering animal. Next morning at 8 he noted a marked general improvement—facility in movement, deeper respiration, pronounced diminution of the trismus, and the eye more expressive. Continuing the practice at intervals of twenty-four hours, he made four other injections of 100 grammes each and always had occasion to note improvement—improvement, indeed, so uniform and progressive as to admit of the horse's lying down and raising himself (a thing he could not do at first) without external aid. The animal (I hear to-day) is in full convalescence and is led out by hand for an airing "senza preoccupazione" (without antecedent trouble). Dr. Supino adds that serotherapy has had previous trials in tetanus, but not with the above indicated means, of which a detailed report may shortly be looked for from his pen."

MEDICAL LECTURES TO LAY AUDIENCES.

WE learn from the *Nottingham Daily Guardian* that a deputation introduced by Alderman Mutch, M.D.Aberd., consisting of the President and several influential members of the Nottingham Medico-Chirurgical Society, recently had an interview with the Watch Committee of Nottingham on the subject of lectures on medical subjects to lay audiences. The deputation, representing a society consisting of over one hundred members, stated that their object was to record their opinion that certain lectures on medical subjects such as had recently been delivered in the city in places of public resort to promiscuous audiences were most undesirable and calculated to do a great deal of harm. They gave a great many facts in support of this view and explained that their action was taken on purely public grounds and not out of selfish regard for professional interests. They did not consider that any injury was done to regular practitioners by the visits of itinerant lecturers, but thought these public lectures tended to excite morbid curiosity and to disturb the minds of susceptible persons. The Watch Committee, we are glad to learn, undertook to use such powers as they possessed to prevent a recurrence of the practices objected to by the deputation. The recent lecturers who have undertaken to enlighten the lay mind of Nottingham on medical subjects were Mrs. Longshore Potts and a certain "Professor" Wells. We notice that the Nottingham Medico Chirurgical Society rightly base their objections to the methods of these people on the highest moral grounds, but we should like, in addition, a little information upon the narrower professional side of the matter. Do not these persons under the guise of imparting useful knowledge of the laws of health really aim at getting money from those who listen to them? Otherwise how do they live and who pays their railway fares?

ICHTHYOSIS AND ARTERIAL ATROPHY.

MM. GASTOU and EMERY furnish an interesting contribution to the pathology of ichthyosis in the *Journal de Clinique et de Thérapeutique Infantiles* of March 24th, 1898. The disease as observed by them occurred in two children aged respectively twelve and ten years and was of the granular variety, each hair being the centre of a minute horny plate. Their father was troubled with the same condition of skin and he, two years before the birth of the elder child, had syphilis. The most interesting feature about these cases, however, is that they exhibited a conjunction of ichthyosis with marked arterial attenuation as expressed in a hardly perceptible thready pulse in both radial arteries with cyanosis of the extremities. This peculiarity has also been noted in ichthyosis by M. Variot. MM. Gastou and Emery regard both the skin disease and the arterial shrinking as evidences of a common dystrophic change—possibly in these cases related to the parental syphilis but not necessarily dependent on this cause as a rule. They note another case in which the same condition of skin and blood-vessels was observed by them and in which the underlying hereditary taint was that of tubercle and they believe that alcoholism and other hereditary disorders exercise the same influence.

THE VACCINATION BILL AND THE JENNER SOCIETY.

THE Jenner Society—or rather its indefatigable secretary, Dr. F. T. Bond—has issued sundry leaflets upon the Vaccination Bill which may be commended to the notice of our legislators. In one of these the measure is critically examined and regret is expressed that children may be exempted from vaccination entirely if the parent pays a pecuniary fine—supposing, that is, that the law is enforced at all; and there are places where it may be doubted whether it wil be set in action in the future any more readily than it has been in the past. It is contended that a far more logical course would have been to suspend the operation of the law when objection is taken not indefinitely but perhaps until school age, when vaccination might be made an essential to admission to school. It is not unlikely, too, that objections to vaccination would be less strong when the child is older. Many cogent reasons are adduced in the pamphlet for transferring the vaccination authority from boards of guardians to the sanitary authorities—i.e., the district and town councils—and as far as possible to combine the offices of medical officer of health and public vaccinator. As regards other provisions in the Bill it is feared that the extension of the statutory age to twelve months may increase rather than diminish the risks of septic infection and that difficulties are likely to arise in domiciliary vaccination as well as dangers of septic injuries in vaccinations performed in unhealthy homes. It is also urged that the Local Government Board should be empowered to define "sufficient" vaccination, to inspect all vaccinations (public or private), and to keep a register where all particulars of the vaccination should be entered from detailed certificates. Amongst other suggestions is one recommending the enforcement of vaccination and revaccination during the existence of small-pox in a neighbourhood on all occupants of houses who, being under fourteen years of age, have not been sufficiently vaccinated or revaccinated. There is a good deal to be said for most of the proposals which Dr. Bond makes in this able *brochure*

and we would welcome them as changes that could be affected without much reconstitution of existing machinery. Another leaflet issued by the Jenner Society contains excerpts from articles in the press on the Vaccination Bill. They indicate that public opinion is by no means unanimous as to the advantages likely to accrue from the proposed alterations in the law, and in reading them it is impossible to avoid the feeling that, in spite of the labours of the Royal Commission and the abundance of facts which it accumulated, the public is still but imperfectly instructed upon the question. Whether the House of Commons is any better informed may perhaps be seen in the debate which will arise on the second reading of the Bill. No doubt the situation is one of singular difficulty, since there is every reason to believe that so long as vaccination is attempted to be enforced by penalties there will be "vaccination authorities" determined to abstain from the use of the powers entrusted to them. The suggested substitution of "suspension" for the infliction of penalties made by Dr. Bond might provide a way out from an "impasse" which is rendering the English administration of Vaccination Acts somewhat ridiculous.

THE DANGERS OF IMPORTED MILK.

PUBLIC attention is very properly being directed to the possibilities of foreign milk being not only infected but also injurious owing to the addition of certain preservatives. We have long urged that the sharpest possible outlook should be kept upon all articles of food coming into this country from abroad. Not long ago we alluded to a report drawn up at the instigation of the (late) Commissioners of Sewers in which there was quite sufficient evidence to show that the milk imported into this country from several countries on the Continent was distinctly open to suspicion, since no precautions appeared to be taken in the care and management of the cattle supplying the milk intended to be sent out of the country. The quantity of foreign milk imported into this country is rapidly increasing, as is evident from a report recently issued by the British Consul at Cherbourg. Thus from this place no less than 76,383 gallons were sent to this country during the three months ending on Dec. 31st last year. And this importation goes on without any guarantee that the milk is free from infection or that it is produced under healthy environment. Further, a new practice is reported to have arisen, which consists in the adding of a vegetable extract which is said to serve as a preservative of the milk for several days. This addition is reported to be beyond chemical detection and the added substance is lost on evaporation. The preserving power of the vegetable extract was suggested from the fact that when cows had partaken of the plant from which the extract is prepared it was observed that the milk yielded remained sweet for an unusual time. The matter, it seems to us, is one which should receive the earliest possible attention, as such an addition may not unlikely prove to be a source of very serious mischief to consumers.

AFFECTION OF THE HEART IN CANCRUM ORIS

IN the *Edinburgh Medical Journal* of March, 1898, Dr. Thomas Oliver has published the following case. A domestic servant, aged seventeen years, who had a comfortable home and had always been well fed, began to suffer from faceache, attributed to a decayed tooth. A day or two later an ulcer formed behind the left upper incisor teeth, which was followed by swelling of the cheek and ulceration of its inner surface. The pain continued and was accompanied by frequent shiverings and prostration. When the patient was first seen, three weeks after the onset, the left cheek was considerably swollen, red, and indurated and the left half of the upper lip was swollen and protruding. There was a large brawny swelling below the chin and the breath was very offensive. The teeth were loose and the gums were red and ulcerated. There was a large ulcer on the floor of the mouth and another on the inside of the cheek, each covered with a slough. The heart was normal and the temperature was 102° F. Three days later friction sounds were detected over the right base and bronchial râles all over the lungs. On the following day the patient was very ill, the bronchitis was worse, and the pulse was 140 and rather irregular. The area of cardiac dulness had increased, the impulse was flapping and more diffused, the apex beat was felt in the fourth space ½ in. external to the left nipple. The area of dulness rapidly extended, the apex beating 1½ in. external to the nipple and over this area was a loud-blowing systolic murmur. At the end of the fourth week the cheek became perforated. By degrees the health improved and the heart became reduced in size, but the murmur could still be heard several months after recovery. The remarkable points in the case are the occurrence of the disease in a subject who had not passed through a previous illness or been exposed to any unfavourable influence, the age of the patient, and the heart complication. Dr. Oliver attributes the dilatation of the heart to malnutrition of the myocardium either from fever or toxæmia; a similar condition occurs not uncommonly in fevers. He thinks that the murmur was due to the dilatation and not to endocarditis. This view appears to us to be scarcely satisfactory. The persistence of the murmur after the dilatation had passed away is opposed to it. Moreover, cancrum oris, like other suppurative foci, would at least give an opportunity for pyogenic or other infection of the endocardium, and so long ago as 1878 Dr. A. E. Sansom described in the Transactions of the Royal Medical and Chirurgical Society an organism found in the blood and diseased tissues.

"PROFESSOR D'ODIARDI" AND HIS ELECTRICAL HOSPITAL.

MR. DREW, the coroner for West London, held an inquest at the Kensington Town Hall on April 12th concerning the death of a man, aged seventy-eight years, who was found dead in a house in Peel-street, Campden-hill, on Good Friday. The landlady of the deceased deposed that he had attended the Notting Hill-gate Free Hospital at 30, Silver-street, and had had the battery applied. Annie Bridge, a nurse, said she was engaged at the "Electrical Hospital," but had had no previous training. There was a staff of six nurses, and Dr. Walton of Swanage, the consulting physician, never saw patients. "Professor" D'Odiardi did. As, however, we are unable to find any medical man of the name of Walton in practice at Swanage in either the current Medical Register or the Medical Directory, perhaps this does not much matter. Mr. D'Odiardi in his evidence said that he had had no medical training nor had he any qualification. He had worked under well-known doctors, and his advice and instruments had been accepted by the Dean of the Medical Faculty at Belgium. He had founded the hospital and received no salary. Deceased had paid £3, but upon his saying he could not afford more he was treated for nothing afterwards. He was of opinion that deceased had catarrh of the stomach. Mr. A. K. Barrett of Peel-place said the post-mortem examination revealed old valvular disease and pericarditis with Bright's disease. There was no catarrh of the stomach. The coroner said that the "professor was absolutely unqualified to diagnose disease. He would advise him only to use his battery under the direction of a doctor." The jury returned a verdict in accordance with the medical evidence and added a rider embodying the coroner's remarks. This place, of course, is a quack institution pure and simple, but as in the present state of the law

such places are not illegal we have no more to say except that they should be made illegal and their owners or managers severely punished.

NATIONAL VACCINE ESTABLISHMENT.

THE National Vaccine Establishment, which is now located at the Local Government Board Offices at Whitehall, will on April 27th be removed to Room 140, St. Stephen's House, Cannon-row, Westminster. Supplies of lymph will be furnished to medical practitioners on personal application at the new premises between the hours of 12 and 2 P.M., or by letter directed to the Secretary at the new address.

THE DEGREE OF M.D. IN GERMAN UNIVERSITIES.

IN many of the German universities it has been usual to allow students who have not passed the State examination, which confers the right to practise, to take the degree of M.D. and it is by no means an unknown occurrence for a candidate possessing a university M.D. to be "plucked" at the State examination. Notwithstanding such failure, however, he is commonly addressed as "doctor" and is doubtless often taken for a qualified man. This ambiguous state of affairs is to be rendered impossible in future—at all events, in the Prussian universities, which will not after the commencement of next winter session permit candidates to obtain the M.D. degree until they are legally qualified. Leipzig and one or two other universities have a rule of this kind already.

SYMMETRICAL GANGRENE FROM EMBOLISM OF ONE ILIAC ARTERY.

AT a recent meeting of the Société Médicale des Hôpitaux M. Widal and M. Nobécourt brought forward a case of symmetrical gangrene produced by embolism of one iliac artery, a result which, though anticipated theoretically by some writers, does not appear to have been previously observed. A man, aged forty-five years, habitually in good health, suddenly felt in the night a sensation of numbness and coldness in the left leg. Two days later when he entered hospital the leg was absolutely cold and covered with purple patches which extended upwards as high as three fingers' breadth above the patella. There was slight tenderness in the course of the femoral artery in the triangle of Scarpa and no pulsation could be felt. The pulsations of the right femoral artery were quite distinct. Six days after the onset of the symptoms the right leg became affected. Suddenly the patient felt tingling and coldness in the leg, which became icy-cold and went through the same changes as the left. The pulsations of the right femoral artery became scarcely perceptible but did not disappear completely for three days. On the left side the patient began to experience acute pain especially in the great toe. The general condition gradually became worse, pyrexia, anorexia, diarrhœa, and nocturnal delirium appeared. There were no signs of visceral disease. Eighteen days after the onset of the symptoms pulsations returned in the femoral artery. The gangrenous changes progressed in the left limb but became arrested in the right a little below the patella. The patient died on the twenty-eighth day. The necropsy completely explained the clinical phenomena. In the left common iliac artery was an embolus adherent to the internal coat which appeared normal. Secondary but non-adherent clots were prolonged downwards into the internal and external iliac, the femoral, and the deep femoral, arteries. A secondary clot ascended to the bifurcation of the aorta and then descended in the right iliac and femoral, arteries. All the secondary clots were soft and non-adherent, those on the right side especially floated in the arteries which they did not fill. The left kidney and the spleen were full of infarcts of the same nature as the iliac embolus.

THE ROYAL HAMPSHIRE COUNTY HOSPITAL, WINCHESTER.

WE had occasion last week to refer to the resignation by the honorary medical staff of this hospital of their appointments. We are glad to learn that the resignations have been withdrawn, under which circumstances we think it right to withhold further comment.

THE PROSECUTION OF MR. H. K. HUNTER.

THE questions involved in this case—a full report of which will be found on p. 1075—are of great importance; but we must await the decision of the High Court before making any comment. The Society of Apothecaries, whose position is seriously affected by the magistrates' decision, are taking active steps to get the conviction quashed, it having been arranged before the case was heard that in the event of a conviction a case should be stated.

TUBERCULOSIS IN FISHES.

THE frequency of tuberculosis in cattle, especially milch cows, the extreme susceptibility of rabbits and guinea-pigs among rodents to artificial inoculation with cultures of the bacilli, and the occurrence of the disease both spontaneously and by accidental infection among fowls, have all been well-known for many years, but that fishes were susceptible does not seem to have occurred to anyone. M. Dubar, M. Bataillon and M. Terre, however, reported to the Académie des Sciences an instance of this which is not only probably unique, but presents several points of great scientific interest. The sputa and dejecta of a woman in an advanced stage of pulmonary and intestinal tuberculosis having been thrown into a fishpond many of the carp were observed to swell and die, and on examination their livers and spleens were found to be filled with tubercle bacilli. Others experimentally fed with tuberculous matter from human subjects, rabbits, and fowls died with the same appearances in two to three weeks and the bacilli of the diseased fish were equally infective to others which devoured them. But when ingested by, or inoculated into, rabbits and fowls the results were negative, the explanation being obviously that they had been so attenuated by cultivation in the colder blood of the fish as to have lost their virulence to warm-blooded animals. Fish must therefore be more susceptible than even rodents, though the conditions under which they live offer few opportunities for infection, those of the carp in a confined pond being, in fact, artificial. Under any circumstances, however, the danger of the communication of tuberculosis from the use of such fish as food must be infinitesimally small should this attenuation of the virulence of the bacilli be a constant phenomenon.

THE HANWELL SCHOOLS.

THE managers of the Hanwell Schools have recently received a report from the medical superintendent of the Isolation Hospital, Mr. Sydney Stephenson, with reference to the admission of ophthalmic cases to which they attach considerable importance, as the figures show that in the hospital only six ophthalmic cases were derived during a year from the Main School at Hanwell as compared with 144 cases sent from a contributary Union. The figures contained in the report deal with admissions during the twelve months ended on March 14th last, and the comparison is between (*a*) the children coming from Newington and Southwark in the St. Saviour's Union, and (*b*) the children transferred from the district schools, Hanwell. Mr. Stephenson

reports that 269 children remain in the Ophthalmic School, made up of 113 boys, 94 girls, and 62 infants. These children belong to the following unions, parishes, &c.: City of London, 2; St. Saviour's, 49; Bethnal-green, 37; St. Pancras, 35; Lambeth, 5; Hackney, 38; Islington, 6; Mile-end, 6; Forest Gate, 13; Poplar, 30; South Metropolitan School District, 5; Greenwich, 2; Shoreditch, 1; Kensington, 15; Strand, 5; Wandsworth and Clapham, 9; St. George's, 1; St. George's-in-the-East, 4; Fulham, 5; Lewisham, 1. The subjoined table shows, in parallel columns, month by month for the past year (*a*) the number of patients sent direct from St. Saviour's Union, and (*b*) the number of children admitted to the Ophthalmic School from the Main School:—

Month.		From St Saviour's District.	From Main School.
March,	1897	—	1
April,	,,	—	—
May,	,,	17	3
June,	,,	5	—
July,	,,	16	—
August,	,,	9	1
September,	,,	—	—
October,	,,	17	—
November,	,,	12	—
December,	,,	3	—
January,	1898	19	1
February,	,,	29	—
March,	,,	17	—
Totals		144	6

THE MEDICAL AND DENTISTS' REGISTERS.

WE have just received the Medical Register for 1898, from which it appears that the total number of registered practitioners with British qualifications is 34,642. In 1897 the total number was 34,478, being an increase of 877 over the total for 1896. The increase for this year over 1897 is, however, only 164, a most notable decrease and one which we are very glad to see. To go more into particulars, the new registrations are as follows: England, 670; Scotland, 425; Ireland, 135; total, 1230. In 1897 the total was 1385. The restorations to the Register for 1897 were 25, while in 1896 they numbered 52. The names removed by death in 1897 were 582 under Section 14, 504 under the penal clause 5, while in 1896 the numbers were respectively 532, 25, and 3. The removals under section 14 comprise those removed for not giving notice of change of address. We think it would add to the value of the Medical Register if a detailed obituary table were published, and also if the names of those removed from the Register under the penal clause were published. If it "is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners," it is surely also expedient that the names of those removed from the Register should be made accessible to those who require medical aid. We have also received a copy of the Dentists' Register for 1898, by which it appears that the number of those dentists practising in the United Kingdom as Licentiates in Dental Surgery is as follows, compared with the numbers for last year:—Royal College of Surgeons of England, 843 in 1898, and 785 in 1897; Royal College of Surgeons of Edinburgh, 181 in 1898 and 159 in 1897; Faculty of Physicians and Surgeons of Glasgow, 139 in 1898 and 130 in 1897; Royal College of Surgeons in Ireland, 451 in 1898 and 445 in 1897. Total for 1898, 1614. Total for 1897, 1519. Of those in practice before 1878, now practising with additional surgical qualifications, there are 34 for the year 1898, while for 1897 the number was only 30. Of those practising without any additional qualifications there are 3265 for the year 1898, while for the year 1897 the number was 3287. Of foreign dentists the numbers are the same for both years—namely, Doctor of Dental Medicine of the University of Harvard, 9; and Doctor of Dental Surgery of the University of Michigan, 15. It will be seen from these figures that the number of qualified dentists is increasing and the number of unqualified dentists is going down. The total number on the register for 1898 is 4937, while for 1897 it was 4860.

THE annual meeting of the American Medical Association will open at Denver, Colorado, on June 7th. The President is Dr. George M. Sternberg of Washington and the Secretary is Dr. W. B. Atkinson, 1400, Pine-street, Philadelphia. Denver is editorially described as being "one of the few large cities where the consumptive can live and thrive almost forgetful of his ailment."

MR. J. C. UMNEY, of the firm of Messrs. Wright, Layman, and Umney, Southwark-street, S.E., has been prompt in bringing out a short Guide to the New British Pharmacopœia, which contains many points that will be of service to the medical man as well as to the retail pharmacist.

WE learn that Sir Richard Thorne, who has been absent from his official duties at the Local Government Board for the last four weeks, is still unwell and is not likely to resume his work this month.

THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

THE report of the first part of the sixteenth sitting of the Royal Commissioners was given in THE LANCET of March 26th. The latter part of the sitting was occupied by the examination of Mr. Whitmore.

Mr. WHITMORE said he had been a member of the London County Council for three years, but had not served on the Water Committee. Both in his capacity as a Member of Parliament and as a county councillor he had given his attention to the question of the London water-supply and the conclusion at which he had arrived was that the London County Council as at present constituted was not fit to undertake the duties of Water Authority for London. He thought, however, that if purchase of the present undertakings of the water companies were carried out and if they were subsequently managed by a public authority that the London County Council, either nominally or virtually, must necessarily become that authority. Two years ago the Government had desired to create a Water Board for the whole of London, including not only the County of London, but the area within the jurisdiction of the county councils which made up the area of "Water London." On this Board the Government felt it necessary to give a preponderating voting power to the London County Council. Whether judged by the test of population or of rateable value the County of London must always have a preponderating voice on a Water Board which had control of the supplies for London. In the case of the Government proposal so much opposition was made by the outside authorities that the Government had to drop the Bill. The demand for control of the water-supply by a public authority was, in Mr. Whitmore's opinion, to a great extent a sentimental demand. To satisfy this sentiment it would be useless to purchase the present water companies' undertakings unless the London County Council became the managing and controlling body.

In answer to Sir JOHN DORRINGTON the witness admitted that he thought that the feeling in favour of purchase of the water companies' undertakings was founded partly on the idea that the companies now distributed large dividends to their shareholders and that a public authority would either diminish the charges paid for water or that there would be a lowering of the municipal rates. The other sentiment was of a political and theoretical nature and was

to the effect that a monopoly should be controlled and managed by a public authority.

Mr. WHITMORE thought it would be unwise to add to the local bodies in London, for there were already enough of them. If another were added to the secondarily elected bodies public sentiment in London would not be satisfied. The old Metropolitan Board of Works died "with universal satisfaction"; the Thames Conservancy is not a popular body; the Metropolitan Asylums Board is always being abused. The two latter bodies are elected by secondary not by direct methods. If, on the other hand, the new body were not so elected another directly elected body would be called into existence. At the present time, however, there is great difficulty in getting electors to go to the poll, and a new directly elected body was not wanted. Again, if a nominated paid body were appointed it would not satisfy the sentimental feeling to which he had alluded. It seemed, therefore, clear, the witness said, that if purchase were undertaken the London County Council must be the controlling authority.

The witness then proceeded to point out the purely political and partisan nature of the constitution and working of the London County Council, so that on any question of water-rate the Council would be sharply divided, and the division would be between the representatives of the wealthier districts and those of the poorer districts. The representatives of the poorer districts would not think of the ratepayers' interests but would think of the water consumers' interests. On the other hand in the wealthier districts the representatives would think more of the rates and less of the water-charges. The chief point, however, was that on both sides the members, instead of considering the business merits of the matter, would think of the next election and they would try in some way or other in not purely business ways "to gratify the hopes of the electors." "Therefore I myself," said Mr. Whitmore, "a friend of the London County Council, am really most earnestly anxious that this great business should not be handed over to us." In illustration of the manner in which the interests of the ratepayers are sacrificed by members of the London County Council Mr. Whitmore instanced the management of the Labour Department of the Parks Committee of the London County Council. The amount spent every year in wages for the employés in the parks has, he pointed out, mounted in a most significant way, and he was ashamed to say that on the Committee his own side, just as much as the other side, was absolutely unable to take a business view of the question.

In answer to Sir JOHN DORRINGTON the witness said both sides thought more of the voter than of the administration.

In answer to Mr. DE BOCK PORTER the witness said that the financial control rested with the Council itself and not with the Committee.

In answer to the CHAIRMAN the witness said that politicians were very bad councillors. The kind of men they wanted were business men of high character. Such people, unfortunately, were afraid of the amount of work which they would have to do on the Council and they disliked the trouble of a contested election.

The witness having again emphasised the political nature of the London County Council's proceedings said that a few members of the Council had always been of opinion that the purchase of the water companies' undertakings would not be successful. The bulk of the Moderate party doubtless agreed that purchase would be a good thing but they disagreed with the Progressive party as to the control of the undertakings. A section of the Moderate party was in favour of the Bill which the Government introduced two years ago for the creation of a water trust. That Bill broke down because the outside authorities would not support it, the reason of their opposition being that a preponderance of voting power was to be given to the London County Council.

Major-General SCOTT asked some questions with regard to the formation of a statutory committee for the purpose of purchasing the undertakings and suggested that if the Welsh scheme were carried out it would be necessary to consider the interests of the counties from which the water was taken and that if an aqueduct were made from Wales to London going through 200 miles of country it would be necessary to consider the interests of the people who were passed *en route*. He asked the witness whether he did not think that a statutory committee under the control of Parliament which represented all those interests would be a good body for managing the whole business.

Mr. WHITMORE said he did not think that such a body would be satisfactory to those who desired the purchase of the water companies' undertakings.

Major-General SCOTT pointed out that the authorities outside London who now share with London the same water-supply will in time be in want of an increased supply and asked whether they would not therefore inevitably be ultimately drawn into some general undertaking with the people of London.

Mr. WHITMORE said he did not know about that, but as a practical Parliamentarian he thought that no Government could legislate on the lines which he understood Major-General Scott to suggest. In answer to Sir GEORGE BARCLAY BRUCE he would not admit that no legislation which did not satisfy the London County Council would be possible or desirable.

The CHAIRMAN said that surely a proper supply of water for London was a question of interest quite independent of party. He might say, "A plague on both your houses." The question of the water-supply was of such importance that the Government might well take it in hand whether it pleased Progressives or whether it pleased Moderates, or pleased neither.

The witness admitted that they might do so, but he did not know how they would get on with their policy, and he did not know how they would pass their Bill. Speaking for himself the witness said he did not wish to see the financial difficulties of purchase faced. In his opinion grievances against the water companies were much exaggerated. He thought that the amalgamation of the companies would be a good thing. He suggested that the President of the Local Government Board should "benevolently conduct negotiations" with the chairmen of the water companies.

The CHAIRMAN asked what birch rod the President of the Local Government Board should have up his sleeve.

Mr. WHITMORE replied, "threatened legislation," and that the legislation should have reference to control. He said, however, that he had never understood what was meant by control.

The CHAIRMAN suggested that the London County Council might have taught the witness what they meant by control, which consisted amongst other things of cutting down dividends and reducing the amount of capital that had to be reckoned for dividend.

The witness said that he did not think the existing rights of the companies should be thus departed from, and that in his opinion control was not much wanted. He had lived in a good many houses in London and he had never been able to find a grievance against the water companies.

The seventeenth sitting of the Royal Commissioners was held in the Council Chamber of the Town Hall, Westminster, on Monday, March 28th. All the Commissioners were present. The first part of the sitting was occupied by the continued cross-examination of Mr. Whitmore.

Mr. WHITMORE said that he thought that the Unionist members of the London County Council would support a scheme for the constitution of a statutory committee on which representatives of the ratepayers would have a majority and in which also the other bodies interested would be represented. He thought that the companies should be amalgamated and a general water rate fixed for the whole of London. He would not oppose a scheme of purchase by a representative statutory committee. In any scheme of purchase he thought that the water companies should be fairly treated with regard to price.

In answer to Major-General SCOTT he said that in his opinion the Thames Conservancy and the Metropolitan Asylums Board were out of harmony with the popular sentiment because they were not popularly elected.

In answer to Mr. DE BOCK PORTER he said that he was convinced that the London County Council alone was not a fit body to be entrusted with powers over the water-supply.

Mr. ROBERT LEWIS said that inquiries had been going on for almost a century with regard to the London water-supply and asked the witness whether he thought it would be possible that any permanent settlement could be made if the companies' undertakings were not purchased. Mr. DE BOCK PORTER also remarked that it seemed curious that in the metropolis of the Empire the principal governing body should not be able to do what was done in provincial municipalities.

With regard to the future management of the London water-supply Mr. WHITMORE said that he thought it would

be an advantage if the companies would amalgamate and if they would reduce their charges for water. He thought that it was likely that the companies would voluntarily reduce their charges all round to the lowest rate now charged by any company out of fear of oppressive control or of confiscatory purchase.

The CHAIRMAN suggested that this was hardly a fair method of treating them and Mr. PEMBER said the suggestion amounted to a proposal that the water companies should commit suicide to save themselves from slaughter.

Mr. Whitmore's evidence was then completed by his examination by Mr. Balfour Browne, Q.C., on behalf of the London County Council.

Mr. G. PRIOR GOLDNEY, the City Remembrancer, was the next witness. He said that the City of London paid one-eighth of the rates of the metropolis and pointed out that in case of purchase the City would have to provide one-eighth of the purchase money; and in case of increase of the cost of supply one-eighth of the increased water charges and rates would fall to their share. From this it followed that the ratepayers of the City of London would have to pay very dearly for their water. Some years ago the Corporation of the City of London had introduced a Bill for the payment of water by meter. The witness suggested that at that time it was thought that meters could be obtained at the price of £2 each.

Mr. BAGGALLAY said that the cost of supplying meters to the whole of London was estimated at £3,000,000. The Bill did not pass.

The CITY REMEMBRANCER said that at the present time arrangements were made between the water consumers in the City and the New River Company with regard to individual cases. The witness was unable to find out how much was paid for water by the citizens of London, or how much water was supplied to them. The New River Company had declined to give that information and had described the City of London as "their little plum." In the case of a new building an arrangement was made by the proprietor with the New River Company as to the amount he should pay for water. Each case was treated on its own merits. The witness thought that in some cases the consumer paid about three-fourths of the full water rent and in some cases not more than one-half. He could not give information as to the number of supplies in which a reduction of the charge was made.—The CHAIRMAN asked whether it was one in a hundred or one in five, and in reply the witness said that although he could not give an accurate opinion he thought that probably in more than half the cases a reduction was made.

The Commission then adjourned until April 18th.

THE BRITISH PHARMACOPŒIA.

WE have received a copy of the new British Pharmacopœia from the Registrar of the General Medical Council, who advises us that some little time will elapse before the book is issued to the public. Before proceeding to the detailed consideration of the volume it may be well to recall to our readers the history of its construction. The British Pharmacopœia is the modern representative of the Pharmacopœias of England, Scotland, and Ireland, or more correctly, perhaps, of London, Edinburgh, and Dublin. These, under Act of Parliament, were fused by a committee appointed by the General Medical Council and formed the basis of the first British Pharmacopœia, which was published in 1864. This volume consisted of two parts and an appendix, the first part devoted to materia medica, the second part to preparations and compounds, after which followed the appendix which dealt with articles employed in the preparation of medicines, articles employed in chemical analysis, test solutions for qualitative analysis, and test solutions for volumetric analysis. It is perhaps needless to go into the history of the conditions which led to the publication of a second edition so soon as 1867, but it may be pointed out that in the latter under the heading of "The Pharmacopœia" all articles and preparations officially employed in medicine were arranged in alphabetical order. In this edition doses were for the first time introduced and they were intended to represent average doses in ordinary cases for adults. These doses were not authoritatively enjoined by the Council and practitioners were informed that they must rely upon their own judgment and act on their own responsibility in graduating the doses of any therapeutic agents administered to patients. This edition was prepared by Professor Redwood of the Pharmaceutical Society and Mr. Warrington of Apothecaries' Hall, under the direction of five members of the Council, including the late Sir Richard Quain (then Dr. Quain), who acted as honorary secretary. An Addendum to the Pharmacopœia of 1867 was issued in 1874. In this Addendum several important new medicines were introduced, including nitrite of amyl, chloral hydrate, and pepsin. No indication was given of the names of those concerned in the production of this Addendum, which was merely published by the authority of the General Medical Council. A third edition was prepared in 1885, when three editors—Professor Redwood, Professor Bentley, and Professor Attfield—acted under the supervision of a committee of eight members of the Council, Sir Richard Quain acting as chairman, and five years later an Addendum edited by Professor Attfield was prepared under the general supervision of a committee of nine members of the Council with the same chairman. On this occasion the Council acknowledged the assistance afforded by various medical authorities and by the committee of the Pharmaceutical Society of Great Britain.

The present volume of the Pharmacopœia has been compiled under somewhat different conditions. Important aid has again been rendered by a large number of medical authorities and inquiries have been addressed to medical and pharmaceutical authorities in India and the Colonies. A committee of the Pharmaceutical Society has given valuable assistance, while the following referees have been consulted: in Chemistry, Dr. T. E. Thorpe, Dr. W. A. Tilden, and Dr. Emerson Reynolds; in Botany, Dr. W. T. Thiselton-Dyer and Mr. E. M. Holmes; in Pharmacology and Therapeutics, Dr. Lauder Brunton, Dr. Walter Smith, and Dr. Ralph Stockman. The task of editing the work has again been entrusted to Professor John Attfield, whose labours have been supervised by the following committee of members of the General Medical Council: Sir Richard Quain, Bart., M.D., President (chairman), Dr. Atthill, Mr. Brudenell Carter, Sir Dyce Duckworth, Dr. Leech, Dr. MacAlister, Dr. D. C. McVail, Mr. Tichborne, and Dr. (now Sir) John Batty Tuke, and a further innovation has been made by the appointment of Dr. Nestor Tirard as secretary of this committee. It will be seen, therefore, that on this occasion special measures have been adopted to ensure accuracy, not only in pharmacy, but also in chemistry, botany, pharmacology, and therapeutics and that the needs of the profession have at the same time been carefully borne in mind.

At first sight the volume which has been issued curiously resembles previous editions; it is practically of the same size as the edition of 1885, and the alphabetical arrangement of the contents has been followed as before. On closer investigation, however, it is found that the actual space occupied by the Pharmacopœia is considerably less, being 389 pages as compared with 472 of the 1885 edition, and this result has been attained by making very numerous omissions and very few additions. With regard to the additions, of which a complete list will be found at the end of this article, it will be seen that relatively few new drugs are included, the principal being salol, salicylate of bismuth, hyoscine hydrobromide, hyoscyamine sulphate, terebene, naphthol, and two preparations of thyroid. Most of the other additions consist of pharmaceutical preparations and of these a series of concentrated solutions are perhaps those which will be most acceptable to the medical profession, inasmuch as this innovation appears to constitute an attempt to keep pace with the dispensing practice of late years and to establish a standard of purity for many preparations which have hitherto been much employed with no certainty of their composition. Considering the small number of additions it is somewhat curious to find that there are no less than seven new syrups, most of which appear to be intended to render medicines more palatable.

Many of the decoctions have been removed from the Pharmacopœia, some perhaps as not being used, while others are replaced to some extent by the concentrated solutions. The omission of the strong solutions of ammonium acetate and of ammonium citrate will probably be regarded with mixed feelings, since there can be no doubt that these preparations are very largely employed, and it is certainly more convenient to store a solution of ammonium

acetate in a concentrated form. The solution of dialysed iron and the solution of bimeconate of morphine share the distinction of having been introduced in the 1885 edition of the Pharmacopœia and found not worthy of retention. It is not improbable that one or more of these four preparations may find a place in future Pharmacopœias. It is possible that the schedules of examination are partly responsible for the many other omissions. Examination schedules are drawn up from time to time and, in the opinion of examiners, indicate the drugs of therapeutic value; hence it can scarcely be a matter of surprise to find that these schedules influence the frequency of the employment of various pharmacopœial substances. Both with regard to omissions and additions the committee appears to have consulted the various examining bodies throughout the kingdom and the advice received is likely to have reflected the opinions of various examiners.

Those engaged in the compilation of the work are to be congratulated upon the moderation shown in the alterations of the names of Pharmacopœial articles and preparations. These alterations generally are in favour of greater chemical and pharmaceutical accuracy. Thus the green extracts left in the Pharmacopœia have their green character indicated by the suffix "viride," and in very numerous instances, of which perhaps the tinctura chloroformi et morphinæ is the best example, the addition of the suffix "composita" indicates the presence of more active ingredients than were formerly included in the title. It is satisfactory to note that the misleading name "ergotin" has been replaced by the more correct term "extractum ergotæ."

The same moderation is shown in the list of substances of which the composition has been altered. This list, moreover, indicates that respect for antiquity has not been allowed to bar pharmaceutical progress. For example, the committee has thought fit to alter the composition of articles of such established reputation as black draught, compound calomel pill, compound rhubarb pill, compound soap pill, and many other pills which are commonly used, as well as that of the aromatic powder of chalk and opium. It may allay some anxiety to say that the alteration in the composition of the pills frequently consists only in the substitution of syrup of glucose or some excipient for glycerin and that these alterations are necessitated by the growth of pharmaceutical knowledge. The proportion of active ingredients has not been altered. In some cases, as in the three hypodermic injections, the changes are more important. The hypodermic injection of apomorphine now contains one gramme in 100 c.c., the hypodermic injection of ergot contains thirty-three grammes of extract of ergot in 100 c.c., while the hypodermic injection of morphine contains five grammes of morphine tartrate in 100 c.c.; the strength of the last, therefore, is slightly less than a half that of the corresponding preparation in the 1885 edition. Many of the lozenges have been altered and there now appear in one of the Appendices four preparations which may be utilised as bases for lozenges—namely, a fruit basis of black currant, a rose basis, a simple basis of gum acacia and sugar, and a basis similar to the last, but flavoured with tincture of balsam of tolu.

An extremely important change consists in the tests applied for estimating the purity of different Pharmacopœial substances. Formerly the tests were described with no indication of the impurity sought for; thus we were told that certain substances should not give reactions with certain tests, but we were not told what impurities were present if reactions were obtained. Hence former Pharmacopœias to some extent presented a series of riddles, and, although it was satisfactory to know that no precipitate was obtained with certain reagents, it might sometimes be a little puzzling to guess what we were looking for and yet hoping not to find. To a great extent a contrary plan has been adopted in the present Pharmacopœia. Probable impurities are definitely mentioned under the description of each substance and the chemical tests for their detection are described once for all in one of the Appendices, instead of being scattered and repeated throughout the book. The length of the Appendices is thus necessarily greatly increased, but this increase is far more than compensated by the saving of space in the body of the Pharmacopœia.

Many of the pages in the Appendix dealing with the tests for substances mentioned in the text of the Pharmacopœia read almost like extracts from a work on practical chemistry. For example, on one page we find grouped together under the heading of "Mercury" "reactions common to mercurous and to mercuric salts," "reactions characteristic of mercurous salts and of mercuric salts." The value of the book as a work of reference is thus enormously increased.

Considering the volume as a whole one of the greatest changes both in appearance and in constitution has been made in the preparation of the index. On former occasions the index was printed in double columns; by the use of italics synonyms were indicated and by the prefix of an asterisk the articles included in the Appendix could be readily distinguished. In the present edition we find that the names of the drugs are arranged in a single column and that these names are followed by three columns giving respectively the page, the dose, and the strength of the chief preparations, and, further, we find that under the English name of the drug is placed a list of its chief preparations and derivatives. The only indication of references to the Appendices is afforded by italic figures in the page column. The index forms the only place in the Pharmacopœia in which groups of official preparations are enumerated, and when its intention and scope are appreciated it is likely to be employed for the purpose of study, as well as for simple reference to the pages of the book, where more detailed information is to be found. The compilation of this index must have been a work of enormous labour and it appears to have been very carefully performed.

We have yet to mention many alterations which will materially affect the practice of those who have employed the former Pharmacopœia in their daily professional work. These are alterations in the strengths of many of the preparations. Some of these alterations unfortunately affect drugs which are in every-day use; thus at the head of the list stands aqua chloroformi, which is so extensively used as a vehicle. This preparation in the new Pharmacopœia is reduced to one-half of its former strength, so that it no longer affords an indication of the degree of solubility. The alcoholic extract of belladonna now contains one-third the proportion of the alkaloids present in average samples of the former extract and is prepared from the new liquid extract, instead of from the root. The extract of nux vomica now contains 5 per cent. of strychnine, which is two-thirds of the alkaloidal strength of the extract of nux vomica of the British Pharmacopœia of 1885, and this also is prepared from a liquid extract, instead of being obtained as formerly from the seeds. In this case the dose is the same as before, but the dose of the alcoholic extract of belladonna has been increased. The phosphorus pill of the last Pharmacopœia contained $\frac{1}{10}$ of a grain of phosphorus in 3 grains, or about 1 grain in 90. The new pill is made so that it may contain 2 per cent. of phosphorus and the whole method of preparation has been completely altered, carbon bisulphide being now employed as a solvent. The strength of the morphine suppositories has been reduced, each containing now a quarter instead of half a grain.

In the last Pharmacopœia there were 70 tinctures, in the new Pharmacopœia we find 67, and of those which have been retained from the former edition no less than 40 have had alterations in their strength. This large proportion of alterations of drugs in common use will not probably cause much inconvenience in practice, as the alterations in many cases are comparatively slight and appear to have been necessitated by the desire of bringing the dose of tinctures into line; in the preface it is stated that in the preparation of tinctures two chief objects have been kept in view, first to arrange for greater uniformity of dose, and secondly, to select for each tincture the menstruum that is best adapted to extract the active constituent. In the volume before us important alterations in strength are mentioned in paragraphs printed in small type. Such paragraphs are to be found under Tinctura Aconiti, Tinctura Chloroformi et Morphinæ Composita, Tinctura Colchici Seminum, Tinctura Lobeliæ Ætherea, Tinctura Podophylli and Tinctura Strophanthi. The alteration in the last mentioned is perhaps the most important. This preparation is now made with half the proportion of strophanthus ordered for the corresponding preparation in the additions of 1890, and the result is that the average dose of tincture of strophanthus is now made equal to that of tincture of digitalis.

It will be remembered that the doses in former Pharmacopœias were intended to represent the average range of doses for adults and the volume has often been charged with not acting up to its intention in this respect, some doses having been much larger and others much smaller than those ordinarily employed. In general terms it appears that the doses in the new Pharmacopœia have been carefully

modified so as to represent more perfectly the practice of the profession and the result is that in most cases the doses are now smaller than before. At the same time it must be remembered that the doses are not officially enjoined and that they merely indicate the range of safety applicable to patients whose previous history is unknown, and they do not prevent the employment of much larger doses on the responsibility of the prescriber.

From the above account it will be seen that the compilers of the new Pharmacopœia have done their work with considerable boldness and that they have greatly enhanced the value of the book. They have deleted much that weighed down former volumes and lent an air of antiquity that was almost open to the charge of senility, and at the same time they have been careful to avoid giving the stamp of authority to those numerous substances which have scarcely yet established fair claims for recognition. The names of many drugs which might have been included will probably occur to our readers and a certain proportion even of those found in the present volume might yet have been deleted with advantage, but on the whole the work has been well done and as a standard of purity it presents a very great advance on former Pharmacopœias. The diction employed, more particularly in the description of botanical substances, still appears somewhat archaic, but these substances are described in terms which are more in accordance with good specimens which find their way into the market, while in indicating the botanical sources the committee has had the advantage of the advice of well-known experts. In all probability some of the details of methods of preparation may be found to require modification, since pharmaceutical methods proverbially do not always succeed in different hands; but we think that members of the profession have reason to be grateful for the careful work which has been put before them and that future practitioners will find that the range of their resources is largely increased by the simplification of dosage.

When dealing with such a work as the Pharmacopœia, issued by the authority of a council and prepared by an editor under the supervision of a committee, it would be invidious to attempt to congratulate individuals upon their labours; but where such great changes have been made in the book it is surely permissible to assume that some of the new workers are largely responsible for these alterations and it is worth noting that the new members of the committee are Dr. Leech, Dr. MacAlister, Dr McVail, and Mr. Tichborne and that another innovation consists in the employment of Dr. Tirard as secretary; it therefore seems possible, or even probable, that many of the fundamental changes above mentioned must be due to their labours.

LIST OF ADDITIONS.

Araroba.
Aurantii cortex recens.
Benzol.
Bismuthi salicylas.
Caffeinæ citras effervescens.
Caoutchouc.
Carbonis bisulphidum.
Cocaina.
Codeinæ phosphas.
Extractum belladonnæ liquidum.
Extractum ipecacuanhæ liquidum.
Extractum jaborandi liquidum.
Extractum nucis vomicæ liquidum.
Extractum strophanthi.
Glycerinum acidi borici.
Glycerinum pepsini.
Hydrargyri oleas.
Hyoscinæ hydrobromidum.
Hyoscyaminæ sulphas.
Infusum scoparii.
Kaolinum.
Lamellæ homatropinæ.
Liquor calumbæ concentratus.
Liquor caoutchouc.
Liquor chiratæ concentratus.
Liquor cuspariæ concentratus.
Liquor ethyli nitritis.
Liquor hamamelidis.
Liquor hydrogenii peroxidi
Liquor krameriæ concentratus.
Liquor morphinæ tartratis.
Liquor pancreatis.
Liquor picis carbonis.
Liquor quassiæ concentratus.
Liquor rhei concentratus.
Liquor sarsæ compositus concentratus.
Liquor senegæ concentratus.
Liquor sennæ concentratus.
Liquor thyroidei.
Lithii citras effervescens.
Morphinæ tartras.
Naphthol.
Oleum pini.
Oleum rosæ.
Paraffinum liquidum.
Physostigminæ sulphas.
Pilula quininæ sulphatis.
Pix carbonis præparata.
Pruni virginianæ cortex.
Quillaiæ cortex.
Quininæ hydrochloridum acidum.
Salol.
Spiritus anisi.
Strychninæ hydrochloridum.
Suppositoria acidi carbolici.
Suppositoria belladonnæ.
Syrupus aromaticus.
Syrupus calcii lactophosphatis.
Syrupus cascaræ aromaticus.
Syrupus codeinæ.
Syrupus ferri phosphatis cum quinina et strychnina.
Syrupus glucosi.
Syrupus pruni virginianæ.
Terebenum.
Thyroideum siccum.
Tinctura ergotæ ammoniata.
Tinctura pruni virginianæ.
Tinctura quillaiæ
Trochiscus acidi carbolici.
Trochiscus eucalypti gummi.
Trochiscus guaiaci resinæ.
Trochiscus krameriæ.
Trochiscus krameriæ et cocainæ.
Unguentum aquæ rosæ.
Unguentum capsici.
Unguentum cocainæ.
Unguentum hydrargyri oleatis.
Unguentum hydrargyri oxidi flavi.
Unguentum paraffini.

LIST OF OMISSIONS.

Acetum.
Acidum lacticum dilutum.
Acidum meconicum.
Aconiti folia.
Alcohol amylicum.
Ammonii nitras.
Anisi stellati fructus
Argentum purificatum.
Aurantii fructus.
Beberinæ sulphas.
Belæ fructus.
Bismuthi citras.
Bismuthi et ammonii citras.
Bismuthum.
Bismuthum purificatum.
Bromum.
Calamina præparata.
Canellæ cortex.
Carbo animalis.
Carbo animalis purificatus.
Cataplasma carbonis.
Cataplasma conii.
Cataplasma fermenti.
Cataplasma lini.
Cataplasma sinapis.
Cataplasma sodæ chlorinatæ.
Cerevisiæ fermentum.
Cetraria.
Charta epispastica.
Cinchonæ cortex.
Cinchonidinæ sulphas.
Cinchoninæ sulphas.
Confectio opii.
Confectio rosæ caninæ.
Confectio scammonii.
Confectio terebinthinæ.
Creta.
Cupri nitras.
Decoctum cetrariæ.
Decoctum cinchonæ.
Decoctum hordei.
Decoctum papaveris.
Decoctum pareiræ.
Decoctum quercus.
Decoctum sarsæ.
Decoctum sarsæ compositum.
Decoctum scoparii.
Decoctum taraxaci.
Ecbalii fructus.
Elemi.
Emplastrum ferri.
Emplastrum galbani.
Emplastrum saponis fuscum.
Enema aloes.
Enema asafœtida.
Enema magnesii sulphatis.
Enema opii.
Enema terebinthinæ.
Essentia anisi.
Essentia menthæ piperitæ.
Extractum aconiti.
Extractum aloes socotrinæ.
Extractum belæ liquidum.
Extractum calumbæ.
Extractum colchici aceticum.
Extractum conii.
Extractum gelsemii alcoholicum.
Extractum hæmatoxyli.
Extractum jaborandi.
Extractum lactucæ.
Extractum lupuli.
Extractum mezerei æthereum.
Extractum papaveris.
Extractum pareiræ.
Extractum quassiæ.
Extractum rhamni frangulæ.
Extractum rhamni frangulæ liquidum.
Farini tritici.
Ferri peroxidum hydratum.
Ferri sulphas granulata.
Glycerinum acidi gallici.
Guttaperchа.
Hordeum decorticatum.
Hydrargyri persulphas.
Infusum anthemidis.
Infusum catechu.
Infusum cusso.
Infusum jaborandi.
Infusum lini.
Infusum maticæ.
Infusum valerianæ.
Kamala.
Lac.
Lactuca.
Laricis cortex.
Liquor ammonii acetatis fortior.
Liquor ammonii citratis fortior.
Liquor antimonii chloridi.
Liquor ferri acetatis fortior.
Liquor ferri dialysatus.
Liquor guttaperchа.
Liquor iodi.
Liquor lithiæ effervescens.
Liquor magnesii citratis.
Liquor morphinæ bimeconatis.
Liquor morphinæ sulphatis.
Liquor potassæ effervescens.
Liquor sodæ.
Liquor sodæ effervescens.
Manna.
Marmor album.
Mastiche.
Maticæ folia.
Mel.
Mica panis.
Mistura ferri aromatica.
Mistura scammonii
Mori succus.
Morphinæ sulphas.
Mucilago amyli.
Nectandræ cortex.
Oleatum hydrargyri.
Oleatum zinci.
Oleo-resina cubebæ.
Oleum myristicæ expressum.
Oleum pini sylvestris.
Oleum rutæ.
Oleum sabinæ.
Os ustum.
Ovi albumen.
Ovi vitellus.
Physostigmina.
Pilula conii composita.
Pilula ferri carbonatis.
Pilula ferri iodidi.
Plumbi nitras.
Potassii cyanidum.
Potassii ferrocyanidum.
Quercus cortex.
Rhamni frangulæ cortex.
Rosæ caninæ fructus.
Rosæ centifoliæ petala.
Sabadilla.
Sabinæ cacumina.
Santonica.
Sodii nitras.
Sodii valerianas.
Spiritus tenuior
Suppositoria acidi carbolici cum sapone.
Suppositoria acidi tannici cum sapone.
Suppositoria hydrargyri.
Suppositoria morphinæ cum sapone.
Syrupus ferri subchloridi.
Syrupus mori.
Syrupus papaveris.
Tabaci folia.
Theriaca.
Tinctura aurantii (Cort. sicc.)
Tinctura chloroformi composita.
Tinctura ergotæ.
Tinctura ferri acetatis.
Tinctura gallæ.
Tinctura laricis.
Tinctura lobeliæ.
Tinctura sabinæ.
Tinctura valerianæ.
Tinctura veratri viridis.
Tinctura zingiberis fortior.
Trochisci opii.
Unguentum antimonii tartarati.
Unguentum calaminæ.
Unguentum elemi.
Unguentum potassæ sulphuratæ.
Unguentum sabinæ.
Unguentum simplex.
Unguentum terebinthinæ.
Uvæ.
Vapor acidi hydrocyanici.
Vapor chlori.
Vapor coninæ.
Vapor creasoti.
Vapor iodi.
Vapor olei pini sylvestris.
Veratri viridis rhizoma.
Vinum aloes.
Vinum opii.
Vinum rhei.

CLIFTON GRAND SPA AND HYDROPATHIC ESTABLISHMENT.—The formal opening of the Clifton Grand Spa took place on March 30th. The building, which is probably one of the best of the kind in England, has been designed to compete with the Continental spas. At the public reception which followed Dr. Shingleton Smith replied for the medical profession.

THE GENERAL MEDICAL COUNCIL AND THE "L.S.A."

A PROSECUTION by the General Medical Council came before the Petty Sessional Court at Caxton, Cambridgeshire, on April 6th, in which a medical man was charged with wilfully and falsely pretending to use the name and title of physician and surgeon contrary to Act 21 Vict. c. 90, sect. 40, and Acts amending the same. The defendant was Mr. Herbert Kingsley Hunter, of Montague House, Gamlingay, Cambridgeshire, who a few years ago acquired the practice formerly carried on for many years by Dr. Trimmer.

Mr. Muir Mackenzie, barrister, instructed by Mr. H. Farrer, of Lincoln's Inn-fields, appeared for the General Medical Council, whose solicitor, Mr. F. W. Farrer, had laid the information, and Mr. Horace Condy, barrister, instructed by Messrs. Berkeley, Son, and Hains, of Lincoln's Inn-fields, appeared for the defendant.

Mr. MUIR MACKENZIE, in opening the case for the prosecution, said the facts were not in dispute. Mr. Hunter, the defendant, was an American citizen who came over to this country to practise, and in November, 1893, obtained the degree or qualification of a Licentiate of the Society of Apothecaries of London and was registered as such. That was the only English qualification which Mr. Hunter possessed, but he claimed to possess, and no doubt right'y, an American degree of Doctor of Medicine (Philadelphia). In his practice he assumed, and to do him justice he claimed the right to assume in this country, the title of "M.D." and also "physician and surgeon." The General Medical Council warned Mr. Hunter that he was practising under a title which he did not possess. In reply Mr. Hunter asserted that he had a right to do so and therefore this was not a case of assuming a title inadvertently or through ignorance. It had been decided by the courts of law, in the case of Regina *v.* Baker, that a medical practitioner who was a Licentiate of the Society of Apothecaries and had no other registered title had no right to practise under the title of "physician and surgeon" or "M.D.," but had the right to practise under the title only which he did possess—viz., that of "L.S.A." To show that Mr. Hunter took the course he had done in order to assert his right he (Mr. Mackenzie) read some letters which had passed between Mr. Hunter and the General Medical Council in the last of which the defendant wrote to the Council: "I shall not trouble you further with any questions, but as I am backed up I mean to fight now to the end." In conclusion he (Mr. Mackenzie) should call evidence to show that Mr. Hunter did use the titles of physician and surgeon when it was perfectly clear that he was not entitled to do so. If Mr. Hunter claimed to do it under the diploma of the Society of Apothecaries or the American degree, then the law had held by the decision in the Aston case that he was wrong, and he must ask the Bench to convict if they were satisfied that the defendant had used the titles of physician and surgeon. He then put in a copy of the Medical Register, which is made evidence by the statute, and called witnesses.

Mr. HERBERT WILLIAM FARRER, of Lincoln's Inn, son of Mr. F. W. Farrer, solicitor to the General Medical Council, formally proved the receipt of the letters from Mr. Hunter to the Council and said Mr. Hunter was first warned that he must not use the title "M.D." and he asked if he could use physician and surgeon and was informed that the Council could not advise him.

Witnesses were called as to paying accounts to Mr. Hunter, printing of bill-heads, &c., in which he described himself as "M.D.," and as "L.S.A., physician and surgeon."

Mr. CONDY, for the defence, said the title "M.D." had nothing to do with this case and the case of the Queen *v.* Baker was for using "M.D."

Mr. MACKENZIE said it was also for using "physician and surgeon."

Mr. CONDY said the defendant did not claim the right to use the title of "physician and surgeon" by virtue of the American degree but by virtue of the diploma which he held from the Society of Apothecaries, which he (Mr. Condy) handed to the Court. In 1886 the Society of Apothecaries was empowered to grant diplomas entitling their holders to practise in medicine, surgery, and midwifery and it was by virtue of that diploma, and by that alone, that Mr. Hunter claimed the right to use the title of "physician and surgeon." Upon his bill-heads he described himself as "L.S.A., physician and surgeon," and it was of this that the prosecution complained. The M.D. degree was not before them at all. He submitted that "L.S.A., physician and surgeon," was an accurate description which could deceive no one, because "physician and surgeon" being prefixed by "Licentiate of the Society of Apothecaries" showed the right upon which he practised. The case of the Queen *v.* Baker turned chiefly upon the M.D. degree and he referred to the case of Ellis *v.* Kelly in support of his view that the diploma gave the defendant the right to use "physician and surgeon" in connexion therewith. The correspondence put in showed that when Mr. Hunter was told that he could not use M.D. he ceased to use it; that he asked the General Medical Council if he could call himself "physician and surgeon," and when they replied, "We cannot advise you," he did the reasonable thing of applying to the body under the diploma of which he was entitled to practise—the Society of Apothecaries. Their answer was that a "L.S.A." could call himself by any title or titles denoting the right to practise in medicine, surgery, and midwifery providing that he did not assume titles conferred by another governing body or university. He therefore submitted that the defendant had the right to describe himself as he had done. If the magistrates were against him on that point then he submitted that before they could convict the defendant they must also make up their minds that he not only called himself that which in fact the law would not allow him to do, but that he did so wilfully and in violation of the law and knowing that he had no right to do so. Lord Bramwell had held that the statute did not impose a penalty for incorrectness merely, but for assuming a title wilfully and falsely. The Act was intended to apply to unregistered men and he submitted that his client had a right to describe himself as he did and that they could not convict him of wilfully or falsely pretending to be that which he was not.

The Bench decided to convict upon the information for styling himself a "physician" and imposed a fine of £5 and costs. The second information for calling himself a "surgeon" was not proceeded with.

Mr. CONDY asked the magistrates to state a case. It was important that this should be done both for the Society of Apothecaries and the General Medical Council. The matter must be fought out because the Society of Apothecaries must defend their diploma.

The magistrates saw no objection to a case being granted and it was understood that the necessary steps would be taken for carrying the case to a superior court.

THIRD REPORT TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

LADIES AND GENTLEMEN,—The brief session of the General Medical Council which has just closed has been to a very gratifying extent productive of much good to the profession at large, not only in regard to the subject laid before the Council for its discussion—viz., the midwives registration question—but also in establishing more firmly the principles of defensive medical legislation.

In the session of November last year the Council appointed a committee composed as follows: Sir Richard Thorne Thorne (chairman), Dr. Atthill, Dr. Glover, Dr. Cameron, Mr. Carter, Mr. Brown, and myself, to report upon any Bill bearing on the subject of midwives' registration that might be brought before Parliament and referred for criticism to the Council by the Government (Privy Council).

When Mr. J. B. Balfour's Bill was introduced and immediately obtained an early place in the ballot I wrote to the chairman and urged that the committee should be called together. After considerable opposition my request was acceded to. The committee met on three occasions and drew up a report, which has just been published *in extenso* in the medical journals. This report was practically based upon the general principles formulated two years ago by the Midwives Bill Sub-committee of the Parliamentary Bills Committee of the British Medical Association.

Of these principles the first and most fundamental is that the only possible method of arresting the notorious evils committed by midwives at the present time is to provide that an ignorant person who practises as a midwife for gain shall be punished. The second principle is that the trained midwife shall be limited to the attendance of cases of natural labour only, and shall tend as a nurse the mother and child during the lying-in period.

The third principle is that there shall be instituted a proper system of supervision and teaching of midwives or midwifery nurses by the medical profession. The report of the committee to the Council naturally met with obstruction in the committee from those members who are opposed to medical reforms but who did not venture in the Council itself to give expression to their antagonism.

All the principles of the committee's report were unanimously adopted by the Council and cast in the form of a memorandum (with wording adopted from the committee's report). This memorandum was directed to be sent to the President of the Privy Council as the Council's answer to a letter which had been received from him requesting the observations and opinions of the Council upon Mr. J. B. Balfour's Bill.

Inasmuch as this memorandum of the opinions of the Council is, like the committee's report, a categorical condemnation of Mr. J. B. Balfour's Bill, nothing can be more satisfactory to the profession than the obtaining from the Council of a unanimous denunciation of a Bill which not only afforded no protection to the public, but seriously threatened the lawful rights of the registered medical practitioner. At the same time I wish to particularly draw the attention of the profession to a very important point involved in this decision—viz., that now the General Medical Council has officially accepted the principle laid down by the committee that no unqualified person should practise with impunity for gain. It necessarily follows as a logical sequence that this step in advance involves the support of the Council to future legislation which may be brought forward for the strengthening of the Medical Acts in this direction, and the earnestness of the feeling of the Council upon the matter was displayed in so unmistakeable a manner that the opposite view to which such strong expression has recently been given in the medical press, found upon this occasion absolutely no exponent.

April 12th, 1898. VICTOR HORSLEY.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6197 births and 4352 deaths were registered during the week ending April 9th. The annual rate of mortality in these towns, which had been 20·2 and 21·5 per 1000 in the two preceding weeks, declined again last week to 20·2. In London the rate was 19·6 per 1000, while it averaged 20·7 in the thirty-two provincial towns. The lowest death-rates in these towns were 12·6 in Portsmouth, 14·1 in Oldham, 14·7 in West Ham, and 15·3 in Cardiff; the highest rates were 23·4 in Derby, 23·5 in Leeds, 23·7 in Plymouth, 25·6 in Salford, and 27·7 in Liverpool. The 4352 deaths in these towns included 516 which were referred to the principal zymotic diseases, against 550 and 538 in the two preceding weeks; of these, 234 resulted from measles, 125 from whooping-cough, 57 from diphtheria, 34 from "fever" (principally enteric), 33 from scarlet fever, and 31 from diarrhœa. The lowest death-rates from these diseases were recorded in Blackburn, Preston, Norwich, and Derby; and the highest rates in Sheffield, Brighton, Bristol, Swansea, and Leicester. The greatest mortality from measles occurred in Brighton, Swansea, Bristol, Leicester, Oldham, Halifax, and Sheffield; from whooping-cough in West Ham, Bolton, and Salford; and from "fever" in Burnley. The mortality from scarlet fever showed no marked excess in any of the large towns. The 57 deaths from diphtheria included 29 in London, 3 in Cardiff, 3 in Bristol, 3 in Birmingham, and 3 in Leicester. One fatal case of small-pox was registered last week in Leeds and 1 in Gateshead, but not one in any other of the thirty-three large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals on Saturday last, April 9th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2419, 2371, and 2377 at the end of the three preceding weeks, had further risen to 2421 on Saturday last; 234 new cases were admitted during the week, against 255, 191, and 239 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 402 and 451 in the two preceding weeks, declined again to 372 last week, and were 10 below the corrected average. The causes of 59, or 1·4 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Salford, Bradford, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Blackburn, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·9 and 24·2 per 1000 in the two preceding weeks, declined to 24·1 during the week ending April 9th, but was 3·9 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·0 in Perth and 17·6 in Edinburgh to 26·3 in Glasgow and 31·9 in Dundee. The 728 deaths in these towns included 44 which were referred to whooping-cough, 24 to measles, 20 to diarrhœa, 9 to diphtheria, 4 to "fever," and 4 to scarlet fever. In all, 105 deaths resulted from these principal zymotic diseases, against 73 and 82 in the two preceding weeks. These 105 deaths were equal to an annual rate of 3·5 per 1000, which was 1·1 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 25 and 21 in the two preceding weeks, rose again to 44 last week, of which 31 occurred in Glasgow, 4 in Paisley, 3 in Aberdeen, and 3 in Edinburgh. The 24 deaths referred to measles exceeded by 1 the number in the preceding week, and included 21 in Glasgow. The fatal cases of diphtheria, which had been 3 and 4 in the two preceding weeks, further rose to 9 last week, of which 2 occurred in Glasgow, 2 in Aberdeen, and 2 in Greenock. The 4 deaths referred to different forms of "fever" included 2 in Glasgow and 2 in Edinburgh; and of the 4 fatal cases of scarlet fever 3 were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 175 and 178 in the two preceding weeks, declined to 157 last week, but slightly exceeded the number in the corresponding period of last year. The causes of 36, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·5 and 35·2 per 1000 in the two preceding weeks, declined again to 24·3 during the week ending April 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 32·4 per 1000, the rate during the same period being 21·7 in London and 20·3 in Edinburgh. The 163 deaths registered in Dublin during the week under notice showed a decline of 72 from the number in the preceding week, and included 9 which were referred to the principal zymotic diseases, against 11 and 20 in the two preceding weeks; of these, 3 resulted from different forms of "fever," 2 from diphtheria, 2 from whooping-cough, and 2 from diarrhœa, but not one from measles, scarlet fever, or small-pox. These 9 deaths were equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 2·8 in London and 1·8 in Edinburgh. The deaths referred to "fever," which had declined from 7 to 4 in the three preceding weeks, further fell to 3 last week. The fatal cases of whooping-cough, which had been 3 and 5 in the two preceding weeks, declined again to 2 last week. The mortality from diphtheria and from diarrhœa also showed a decline from that recorded in the preceding week. The 163 deaths in Dublin last week included 21 of infants under one year of age, and 39 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons were below those recorded in any recent week. No inquest cases or deaths from violence were registered; and 58, or more than a third, of the deaths occurred in public institutions. The causes of 14, or more than 8 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL LEWIS A. IRVING retires on retired pay. Brigade-Surgeon-Lieutenant-Colonel Andrew A. Macrobin retires on retired pay. Surgeon-Lieutenant Browne-Mason and Surgeon-Lieutenant Penny join at Woolwich for duty. Surgeon-Major McCormack embarks for West Africa. Surgeon-Major O. E. P. Lloyd, V.C., is posted to Maryhill, Glasgow, in charge of the Station Hospital. Surgeon-Lieutenant-Colonel Fenn is ordered to Dover for duty. Surgeon-Major James has left the Home District for duty at Aldershot.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following officers have been transferred: Surgeon-Major Barry, Civil Surgeon, from Mussorie to Gorakhpur, and Surgeon-Lieutenant-Colonel Moran, Civil Surgeon, from Gorakhpur to Mussorie. The services of the under-mentioned officers are placed permanently at the disposal of the Government of Bengal: Surgeon-Captain Deare, Surgeon-Captain Oldham, and Surgeon-Captain Bird. The services of Surgeon-Colonel Hay (Bombay) are replaced at the disposal of the Military Department. Surgeon-Major Quayle, Civil Surgeon, Nimar, is placed in Visiting Medical Charge of Hoshangabad until further orders.

YEOMANRY CAVALRY.

Royal 1st Devon: Surgeon-Captain F. Morgan resigns his commission. Herts: John Andrew Turner, M.B. Edin., to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Newcastle-on-Tyne (Western Division, Royal Artillery): Surgeon-Captain A. T. Wear, M.D. Durh., to be Surgeon-Major. 1st Northumberland (Western Division) Royal Artillery: Surgeon-Lieutenant J. Wreford to be Surgeon-Captain. *Rifle:* 1st Volunteer Battalion the Northamptonshire Regiment: Surgeon-Captain R. Greene resigns his commission.

CASUALTIES IN MODERN SEA FIGHTS.

The report which was read at the Moscow Congress by Mr. S. Suzuki, fleet-surgeon in the Imperial Japanese Navy, and which was printed at length in THE LANCET of Oct. 16th, 1897, contains a great deal of interesting information about Wei-hai-wei which now becomes topical and to which we refer our readers. When Wei-hai-wei (pronounced *way-high-way*) was taken in February, 1895, 12 ships of the attacking fleet, which consisted of 25 large vessels besides 15 torpedo boats, were struck by 28 projectiles, but the resulting loss was not very great, only 20 of the Japanese having been killed and 46 wounded. The percentage of casualties in each grade was as follows:—Officers, 10·0; non-commissioned officers, 1·0; engineers and stokers, 0·6; bluejackets, 1·2; non-combatants, 0·6. During the Yalu engagement 125 missiles of various kinds reached the Japanese ships, the percentage of killed and wounded in this case being officers, 7·8; non-commissioned officers, 8·7; engineers and stokers, 2·6; bluejackets, 9·4; non-combatants, 9·8. At the beginning of the fight a single projectile, 30 centimetres in diameter, killed 30 men on board the *Matsushima* and wounded 70 more. On board the *Hiyei* a shot of similar dimensions killed 14 men and wounded 27, without reckoning 10 more who were injured by splinters. On board the *Itsukushima* 8 men were killed and 3 wounded by a projectile of 21 centimetres; 5 stokers were severely wounded by a 15-centimetre shell which penetrated the starboard coal-bunker 3 ft. above the water line; and a smaller shell, only 5 centimetres in diameter, sufficed to place 10 sailors *hors de combat*, 4 of them with mortal wounds. On board the *Akitsushima* 5 men were killed and 9 wounded by a 21-centimetre projectile; and on the *Fusoo* 10 men were disabled by the fragments of a shattered chimney-stack. The *Saikyo* was more fortunate than the above-mentioned vessels, for although her hull was penetrated several times by the largest-sized missiles she nevertheless suffered comparatively little damage as none of them exploded. The torpedo-boats seem to have gone through both engagements without injury from the enemy with the exception of No. 9, which was hit no fewer than thirteen times at Wei-hai-Wei on Feb. 5th. Most of the shots were harmless, but one shell exploded in her boiler and caused the death of eight men by scalding. The Japanese surgeons one and all treated their wounded antiseptically in the most enlightened fashion and with the happiest results. One man died from erysipelas, but this was the only preventable complication which occurred. They also practised the most strict conservatism in their operations, amputations being performed solely as a last resource in cases where the larger blood-vessels were implicated or where articulations were entirely disorganised. In many instances joints that had been penetrated were preserved at the expense of more or less complete ankylosis; 21 per cent. of the total injuries were situated on the head; and in the next place the parts affected were the upper and the lower extremities. Then in their order came wounds of the abdomen, the chest, the back, and finally the neck. Several cases of ruptured tympanum were due to the heavy ordnance.

PUBLIC HEALTH OF GIBRALTAR.

We have received a copy of the Annual Report on the Public Health of Gibraltar for 1897 by Surgeon-Major H. P. G. Elkington, M.R.C.S. Eng., D.P.H., of the Army Medical Staff, who is acting as medical officer of health at that station. Although the military population and the non-residents and persons entering Gibraltar on daily permit are not included in this report there are several matters of more or less interest to all. The nature and amount of the water-supply, for example, will always have an interest for the garrison of a place liable to be attacked and besieged. The civil community in Gibraltar exists under peculiar conditions which make it difficult to form an accurate estimate of the population, but the Census returns for 1891 show a total civil population of 19,100, composed of a "fixed" and "resident alien." The death-rate in 1897 was 23·56 per 1000 of the total population and 25·43 per 1000 of the "fixed" population. These rates were in excess of those of the past two years and of the previous quinquennial period. The infantile mortality (under one year of age) is high—it was 184·9 per 1000 in 1897—and the death-rate among children under five years of age was equal to 108·11 per 1000. The principal causes of death were zymotic and respiratory diseases. Measles, small-pox, diphtheria, diarrhœa, fevers, and respiratory and tuberculous affections appear to be the main prevailing diseases at Gibraltar. The sanitary condition of Gibraltar is improving but much still remains to be done. There is a good deal of overcrowding and this still continues to be the great problem to be dealt with. A bacteriological laboratory was opened at Gibraltar in 1896 and has done good work.

HOSPITAL STOPPAGES.

The *Broad Arrow* states that "in the case of soldiers (including boys) admitted into hospital on account of injuries received when in the execution of their duty or sickness, certified by the medical officer to have been contracted as a direct result of their military service, the circumstances being beyond the soldier's own control, one half of the hospital stoppage may be remitted by the general officer commanding. If any injury has been received when on duty at drill or manœuvres under circumstances beyond the soldier's own control the whole stoppage may be remitted."

DEATHS IN THE SERVICES.

Surgeon-Captain Edward Corcoran, A.M.S., on March 23rd, at Okuta, in the Hinterland of Lagos, aged twenty-five years. He contracted malarial fever while on field service. He joined the Army in the month of February, 1887, and served in the Ashanti Expedition of 1895–96 (star).

THE QUEEN'S BIRTHDAY.

It is notified in the *London Gazette* that "the Queen's Birthday will be celebrated in London alone on Saturday, May 21st next, and at all other stations, naval and military, on Tuesday, May 24th next."

BRISTOL ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The annual meeting of this institution was held on April 4th, under the presidency of the Bishop of Bristol. The report showed that during 1897 there had been 709 children treated as in-patients, and 1069 women and 2602 children were attended as out-patients. The financial statement showed an adverse balance of £994. Sir W. H. Wills Bart, M.P., had given £250 for the convalescent home at Weston-super-Mare in connexion with the hospital.

Correspondence.

"Audi alteram partem."

THE CROWN VACANCY IN THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—I feel I am asking a great favour to be allowed to add a few words to the leading article on the above subject in your last issue, but our case is urgent, and therefore beg to be allowed to point out its urgency. Everybody must agree that the two classes needing representation are the dentists and the general practitioners, but I venture to think the former have the greater claim, and for the following reasons. The general practitioner is already ably represented in the person of Dr. Glover, while the dentist has nobody to speak with authority on his behalf. No period of time can add to the dentists' claim, because it is as urgent now as it has always been.

In 1878 when the Dentists Act was passed Sir John Tomes advocated the appointment of a dentist, and yet in twenty years one has not been appointed. At the present time the question of the dental curriculum is under consideration and the advice of a dentist would be of inestimable value in arriving at a conclusion. That one-sixth of the cost of the office is borne by the Dental Fund appears to be an additional reason for such an appointment. A careful search through the Medical and Dental Acts shows that without an additional Act of Parliament the number of the General Medical Council cannot be increased and it is therefore only possible for a dentist to be nominated by the Crown. It surely is not justice for the Dentists Act to be administered by the General Medical Council when there is nobody on the Council able to speak with authority and experience on behalf of its interpretation. The gentleman suggested by the British Dental Association as the Dental Representative would certainly add lustre to that already distinguished body, the General Medical Council.

I am, Sirs, your obedient servant,

MORTON SMALE.

April 12th, 1898. Dean, Dental Hospital of London.

NEW DRUGS AND PREPARATIONS.

To the Editors of THE LANCET.

SIRS,—It is a remarkable fact that sixty years ago, when we had great faith in drugs and used them largely, they were very few and simple and that now, when we trust much more to nature, hygiene, and nursing, we are inundated with them so that samples of new drugs and preparations are becoming quite a nuisance. Almost every day the post brings me one or more of them, with pamphlets and testimonials, and a request that I will test them by prescribing them for my patients. I must have received hundreds of samples in the last few years and have never prescribed one of them, but I have quite a museum of these curiosities at the Surrey Dispensary, where they are kept unopened. As interesting specimens of nomenclature I may mention cotoine, migrainin, amydol, lycetol, nosophen, neboline, gelanthe, terrol, coumarin, eikonogen, eugenol, gallonal, glutol, loretin, terpinol, cosmoline, ozokerine, kreachyle, urecide, psonal, and seng. As these things are very seldom prescribed of course the dispensing chemist does not *stock* them, so that when they *are* prescribed he has to purchase them in quantities much larger than he requires and, as many of them are never prescribed a second time, the surplus represents so much money lost. For example, I know a chemist who had a prescription in which cotoine was ordered; he had to pay 30*s.* for an ounce of it, used about a shilling's worth, and lost 29*s.* by this one prescription. When physicians prescribe such things I think they should supply the chemist with the samples they have received from the wholesale houses, otherwise they are impoverishing a class of men already poor enough and who are very much underpaid for their education, skill, time, and trouble. Then, as I said, we are asked to test all these new preparations. Now, to test any one of them fairly and scientifically we should require a ward of at least 20 beds and 20 typical cases of the disease it is said to cure; we should then give the preparation to 10 patients, treat the other 10 without it, and compare results. If all the samples we receive were thus tested we should have to give up practice and devote every hour of our lives to the work. I hope the new Pharmacopœia will give us all the drugs and preparations new and old that we can possibly require so that we need never prescribe anything outside of it. Physicians' prescriptions would then be simple and intelligible and chemists would not lose money by dispensing them.—I am, Sirs, yours faithfully,

D. HOOPER, B.A., M.B.Lond.,
Physician to the Surrey Dispensary.

Trinity-square, S.E., April 1st, 1898.

"SICK AND OBSTETRIC NURSES BILL."

To the Editors of THE LANCET.

SIRS,—In your review of this Bill on page 953 of THE LANCET of April 2nd, 1898, you ask: "Suppose a voluntary nursing association were to adopt this Bill, would such an association obtain the assistance of the relieving officers and would the relieving officers investigate cases and make reports to the voluntary association as they would to their board of guardians?" My reply to both queries is an emphatic negative. It is distinctly laid down in Clause 5, sub-clause *c*, "that in order to make due provision for the sick and parturient poor and their children it shall be incumbent upon boards of guardians, *in default of other authority*, to adopt and carry out the provisions of this Act in their respective unions and to vote the necessary funds or to make grants in aid to voluntary nursing associations to meet the expenses of the provisions of this Act." And this provision is worked out in Schedule D on the basis of the local nursing association to which the Richmond board of guardians already contribute with the sanction of the Local Government Board. Under Clause 8 relieving officers would, of course, report to their boards, who would issue "the orders" to the three classes of poor persons specified therein, and under this clause the fees would be the same as under the consolidated orders, with mileage extra, but the fees and contributions under a nursing association would be as contained in Schedule D.

I may repeat that the intention throughout the Bill is the establishment of voluntary nursing associations on the lines of those already existing in various parts of the country. Assistance by way of subsidy is only claimed for those that would not be self-supporting. You may not have noticed that Mr. Gerald Balfour announced in the House of Commons recently that he hoped to be able to introduce "a Bill to enable boards of guardians in Ireland to subscribe to nursing institutions for the benefit of the sick poor in their districts." This is a direct and opportune acknowledgment of the principles of my Bill from an unexpected quarter.

The Bill, as you say, may not "wholly meet the case," but of the Bills now before the profession it is the *only* one that attempts to provide for the needs of the "sick and parturient poor," the others being taken up with the registration of midwives, which, according to the promoters, is quite a different question and by no means intended to meet the urgent wants of "the poor."

I am, Sirs, yours faithfully,

East Sheen, April 9th, 1898. ALEXANDER MCCOOK WEIR.

THE EPIDEMIC OF MEASLES.

To the Editors of THE LANCET.

SIRS,—The hope that the public will learn from the present epidemic of measles the gravity of the disease so well expressed in your leading article of March 26th I can fully endorse from an epidemic I experienced in 1894. In November and December of that year an outbreak occurred in this town. The power of it can be readily understood from the following facts. My practice was one of three, and I attended, independently of the other practitioners, 157 cases, and I had 13 deaths in the two months, the population of the entire parochial area being only just outside 3000. The Christmas was a most melancholy one, and one not easily forgotten, 7 children had been buried the Sunday before Christmas day and several were lying dead then. Every day, and nearly all day, the church bell was tolling for deaths or funerals. I attribute the high mortality of this

epidemic to two chief factors: first, the presence of lumbricoides in about 90 per cent. of the cases, as verified by their escape; and, secondly, that in about half the number of cases the houses were devoid of fireplaces in the bedrooms. With regard to the worms I found that an infant of ten months voided *eight* of them, all measuring over 6 in. in length. They seemed unable to remain comfortably in their host when the initial rise of temperature occurred and escaped either from the mouth or per anum. If all escaped the case generally did well, but if some remained they died, decomposed, and set up a toxæmic condition with a secondary rise of temperature to 104°, 105°, or even 107°, accompanied by rapid, shallow breathing and some delirium. The breath developed a characteristic and peculiar putrid smell and the tongue was covered with a white fur with prominent reddened papillæ. Sleeping in a fireless room at this period of the disease would be a menace to the child's life, but many did so even in frosty nights; broncho-pneumonia usually supervened. Among the lower classes the child had been treated up to this point, generally speaking, by the parents, the rural mind having a strong belief in the internal administration of "zum hot zyder" and piling weighty clothes upon their victim in order "to keep 'un hot," the room being usually fireless, cold, more or less damp, whitewashed, and draughty. Under these circumstances a high mortality is not to be wondered at, for a complication of measles, toxæmia, obstinate constipation (somstimes putrid diarrhœa), broncho-pneumonia, or, worst still, capillary bronchitis, had to be combated—no easy task. How to warm the room was a knotty point to settle. Paraffin stoves did it well for some cases, but at great expense of oxygen and gave a bad odour—either being positively harmful to capillary bronchitis. The only other place for a fire was in the kitchen where logs eight feet long could be burnt on the hearth in the huge chimney built 200 years or more ago. To bring the child here would be impracticable, for the air drawn up the great chimney by combustion would freeze one side of the bed even if the other were roasted. To quote from your leading article, "no disease seems to admit of beneficial guidance and control more than measles," and conversely, as I have shown, rough-and-ready guidance is disastrous, for I can think of no case that died among those which I treated from the very beginning. Those cases which had been left long without skilful treatment either died within a few days or survived only after a severe hand-to-hand combat. There is no doubt that, unless in an exceptionally malignant form, scarlet fever is a much less formidable disease than that which is often regarded as "mere measles."

I am, Sirs, yours faithfully,

G. G. GIDLEY, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.

Cullompton, March 28th, 1898.

"VENESECTION IN APOPLEXY."

To the Editors of THE LANCET.

SIRS,—The case reported by Mr. Colin Campbell in THE LANCET of April 9th, 1898, is of great interest and one that should not remain imperfectly recorded. It would be well to know, if possible, the cause of the apoplexy—whether it was due to embolism (as the very conspicuous but temporary mitral systolic murmur would suggest) or to hæmorrhage; also, what was the probable location of the cerebral lesion. No mention is made, either, of any paralysis following the attack. If such particulars could be added while the case is still fresh in the memory of your readers it would make the story more complete and might help to determine the important point—viz., which cases of apoplexy are benefited by venesection and which are not.

I am, Sirs, yours faithfully,

F. LUCAS BENHAM, M.D., M.R.C.P. Lond.

Elizabeth-street, S.W., April 9th, 1898.

THE VACCINATION BILL.

To the Editors of THE LANCET.

SIRS,—As a public vaccinator I think we should make strenuous efforts to induce the Government to alter the time for compulsory vaccination from the age of twelve months to that of six months, to retain the public stations, and to make provision for medical attendance on children after vaccination whenever it is found necessary. You are aware that under the present system a very large number of children (over 156,000 in the year 1894) escape the vigilance of the vaccination officers and remain on their books as unaccounted for. With the proposed extension of time the chances are that that number would be increased threefold. It must also be remembered that the Royal Commissioners suggested that the period for primary vaccination should in future be the age of *six* months. My experience of over twenty years as a public vaccinator has taught me that, provided the children are in good health, the safest time to vaccinate them is at the age of from two to four months, and also that a very considerable proportion of parents do, in fact, prefer to have them done before they attain the age of three months. The reasons generally assigned for this early performance of the operation are (1) that the infants at that period do not suffer so much from the effects of the vaccination and (2) that there is much less danger of having the marks injured.

It has been stated that there is nothing in the new Bill indicating that it is intended to dispense with the public vaccination stations. But, Sirs, it must be inferred from the fact that domiciliary visits are to be made at a certain time by the public vaccinators. If my view is correct, then those parents who have hitherto preferred to have their children vaccinated at an early age will not have an opportunity of having them done except at their own expense. In case of an epidemic of small-pox breaking out in a populous town like Cardiff there would of necessity be a large number of children totally unprotected, and I cannot help saying that this is a very serious question and one which I hope will be duly considered by the sanitary authorities of all our large towns. Should the Government resolve to adhere to the time proposed in their Bill, then I hope some provision will be made for the inspection of children before they are allowed to enter any school whatever.

I am, Sirs, yours truly,

Cardiff, April 9th, 1898. T. GARRETT HORDER.

THE INCUBATION PERIOD OF SMALL-POX AND THE INFLUENCE OF VACCINATION ON THE SAME.

To the Editors of THE LANCET.

SIRS,—The letter of Mr. Collinson in your issue of April 9th in reference to "Some Points relating to Vaccination as Illustrated by Observations during the Present Epidemic in Middlesbrough" would seem to prove that the *incubation* period of small-pox is more than twelve or fourteen days; also that vaccination has no influence on the course of the disease even when practised in the incubation period. The cases (excepting one) quoted by Mr. Collinson show a period of something like fourteen days as the incubation period if we may assume that the patient received the infection from the first case that occurred in the house. This period, however, I am convinced is not sufficiently long to allow for quarantine purposes. During an experience of small-pox I had early in 1896 I soon found that fourteen days did not allow sufficient time for the occurrence of fresh cases, but found eighteen days to be apparently the period for some of the cases. One case, however, turned up after nineteen days. I then came to the conclusion that it was safer to have a period of twenty-one days, for after this period had elapsed no fresh case occurred. I find in Allbutt's System of Medicine that nineteen, twenty, or twenty-three days may be the period of incubation. Dr. Armstrong of Newcastle relates a case where twenty-one days was the incubation period.[1] With regard to vaccination running its usual course during the incubation period of small-pox there is no doubt. Whether it will do so after the eruption of small-pox has appeared I cannot say; but in THE LANCET of 1873[2] Mr. Furley of Edinburgh advocated the treatment of small-pox by vaccination and he seemed to think it modified the course of the disease. In my experience vaccination has no influence on the disease if performed in the incubation stage. I was unaware of this fact till the experience I had in 1896 or I had forgotten it. It goes to show that vaccinia and variola are two distinct diseases. I find in an old edition, 1873, of

[1] THE LANCET, April 10th, 1886, p. 715.
[2] THE LANCET, July 12th, 1873.

Practical Medicine, by Niemeyer, that he states on pp. 555 and 556: "During an epidemic (small-pox) persons who have been vaccinated but in whom the vaccination has not yet taken are attacked by small-pox and the two diseases run their course at the same time without modifying each other. These cases show that vaccination during the period of incubation of small-pox cannot cut short the disease and also that susceptibility to vaccination is not lost during the period of incubation." He goes on to say that vaccination and revaccination should be performed without delay as soon as small-pox is known in a neighbourhood.

I am, Sirs, yours faithfully,

WM. BERRY, F.R.C.S.Irel., D.P.H.F.P.S.Glasg.,
Medical Officer of Health of Wigan.

Wigan, April 11th, 1898.

"AN UNKNOWN LARVAL PARASITE."

To the Editors of THE LANCET.

SIRS,—Cases similar to the one so ably described under the above heading[1] by Dr. Frank Arnold are by no means rare on the West Coast of Lake Nyasa and in the country beyond. The worms are generally attributed by the natives to a fly of a mottled-brown colour, similar in shape to, but larger than, a big horse-fly, which is known by them as the "tshizeti." Some believe that the fly lays its eggs directly beneath the skin of the affected person; others that the eggs are deposited in large numbers upon blankets and other articles of clothing, and that the resultant maggots or "fusi" are able, while yet quite small, to penetrate the epidermis of the host.

I am, Sirs, yours faithfully,

Liverpool. STANLEY KELLETT SMITH.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Sudden Abandonment of Plague Operations in Bombay.—The New Measures.—Increase of Plague in the Punjab.—The Wounded Europeans.

THE work of the Plague Committee in Bombay has for all practical purposes suddenly ceased. Not that the plague is decreasing—rather the reverse; but a new policy has been adopted by the Government. This change was contemplated before the riots on March 9th, but a proclamation issued on March 15th states that general searching of houses for plague cases will be wholly given up. There will be no inspection of corpses and consequently no delay of funerals. The plague authorities will only take action against houses where undoubted cases of plague occur and there will be a relaxation of the pass systems, allowing free exit and ingress to *bonâ-fide* traders. This change is not only sudden but complete. It is stated that the operations of the Plague Committee were conducted in such a way as to create much discontent among, and hardships to, the native population, to very seriously hamper and injure the trade interests of Bombay, and to alienate all help from the natives themselves for the extermination of the disease. It is admitted that the results achieved have been far from satisfactory, but it is urged that a modification of the measures, which were based on general sanitary regulations, was all that was required. The new *régime* amounts to a distinct abdication of powers hitherto exercised by officers directly under Government to a collection of caste leaders with little or no sympathy in any sanitary measures for plague control, bearing little or no responsibility and undeterred by any consequences which may ensue. In truth, however, there are no recognised native leaders and no native committees have been formed. It is now left to the natives themselves to take their sick to their own native hospitals if they choose, to report houses where cases of plague have occurred, also if they choose, and to vacate their houses and go into the health camps of their own accord. With the general dislike to hospitals it is almost certain that the sick will be left to die in their own homes. No kind of isolation whatsoever will be practised. The "contacts" will be free to move about undisturbed and a small proportion of infected tenements only will come under notice for disinfection. There will, in short, be no measures whatever adopted to check the spread of the contagion. From previous experience it is impossible to place any reliance whatever upon the natives themselves for following up any of the sanitary measures hitherto adopted for their benefit. Moreover, they have no organisation, and their efforts, even if reliable, are entirely voluntary. While the number of plague cases reported daily has probably fallen very far short of the correct number it is reasonable to assume that a much larger proportion will now fail to be registered. The total mortality will alone give any indication of the ravages of the disease. Whether or not other considerations have determined the adoption of this new policy it is almost certain that the results from a sanitary point of view must be disastrous.

The Europeans injured in the recent riots are all progressing favourably. It is reported that a very much larger number of natives were killed and wounded than the figures officially published would seem to indicate. The plague is reported to be rapidly on the increase in the Punjab and many places in the Nizam's dominions have also been attacked. Preparations are being made to carry out Haffkine's prophylactic inoculations on a large scale in the latter territory. Among the 6000 Khojas of Bombay who have been inoculated only three cases of plague have occurred, which speaks highly for the protective value of this preparation. Some recent experiments with electrolysis of buboes have been attended with satisfactory results. Not only have the swellings rapidly diminished, but almost immediate improvement has been recognised in the general symptoms. From 10 to 15 milliampères is the strength used, which is kept up for ten minutes, and in most of the cases one operation has sufficed. This treatment is still being followed up and some results will be able to be published shortly.

The modified measures recently adopted by the Government appeared at first sight to have appeased popular feeling, but there are evidences of considerable discontent with even the very mild steps now taken. The following rules just promulgated contrast very strongly with the regular house-to-house visitation which was formerly carried out together with the compulsory segregation of all cases found into hospital, of many of the contacts to the observation camps, the emptying of crowded and insanitary houses, and the disinfection of plague-stricken premises on a large scale. It is now ordered that house-to-house visitation be carried on by the people themselves—i.e., by committees appointed from among them. Plague officials will search only those houses where cases or deaths have recently occurred or where there is a reasonable suspicion of a plague case.

No patient will be removed to a plague hospital unless an approved and fully qualified medical officer certifies it to be a plague case. If such a medical officer pronounces a case to be hopeless—i.e., only expected to live a few hours—such patient will not be removed to a hospital without the consent of the relatives. In the event of a case of plague occurring in the family of a well-known and well-to-do or respectable person the patient will be allowed to remain in the house and can be attended there by his own doctor and by one or two members of his family, provided the house is a detached one and the patient can be isolated and the family agree to remove themselves to one of the Plague Committee's health camps, or to dwell at a detached place where they can be placed under supervision. Where disinfection will suffice no destruction of property is now allowed. If, to diminish risk of infection, destruction of property is found to be necessary, compensation will, in the case of the poor, be paid on the spot. Infected houses will continue to be disinfected as heretofore. The owners or occupiers will be given the option of disinfecting their houses themselves to the satisfaction of the district plague officer. Contacts will continue to be removed as before.

The policy of depending upon the natives to notify cases of plague has not yet shown any improvement in the number detected. It is estimated that 600 cases of plague occur weekly which escape discovery by the staff of the Plague Committee. This is about half the mortality from plague. Large numbers die in their own homes, and large numbers are taken to the hospitals in the last stage of the disease and die there within a few hours. There is no reduction in the general mortality, and plague has now gradually spread to every quarter of the city in a very similar manner to what was observed last year. Fresh orders, still further in the

[1] THE LANCET, April 2nd, 1898, p. 960.

direction of leniency, have just been issued by the Government. They are as follows: 1. Persons are only to be compulsorily removed by order of a plague authority to a health or segregation camp when their house is known to be infected with plague and when they are unable to satisfy the plague authority that they will remain under observation in a sufficiently isolated and convenient place. 2. Voluntary removal to a health camp or other place of safety should be encouraged by all means possible. 3. If a plague case can be suitably treated and isolated in a house of sanitary situation, free from the danger of spreading infection, the patient may be allowed to remain, provided that the other occupants (save the immediate attendants) remove themselves elsewhere as above stated.

This week's mortality is the highest recorded during the present epidemic—the death-rate is at the high figure of 142·25 per 1000 per annum—2268 deaths having been registered. Four Europeans have died from plague. Relapsing fever is not quite so prevalent.

March 26th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Birmingham Medical Institute.

THE Medical Institute has never been a plant of vigorous growth. It has fulfilled in the abstract the indications for which it was founded in 1874; that is, it has provided a library and a place of meeting worthy of the profession. The library now contains more than 12,000 volumes; the reading-room is well supplied with periodicals and works of reference; the library hall affords a capital room for the meetings of societies; there are a lavatory and smoking-room, electric light, and most modern conveniences conducive to comfort. Yet the place does not thrive with all its advantages. The endowment is £6600, which, brings in an income of £238 a year, but the necessary annual expenditure exceeds over £490. At present there are only 166 subscribers of one guinea a year out of a large number of medical men in the town and district around. The report given at the annual meeting held on March 30th showed that the year ended with a deficit of £71 11*s.* 8*d.*, a sum which has since been wiped off by the generous contributions of a few leading members. Some suggestions have been made for selling the present site, building a new institute with the proceeds, and living within the income. It would be a matter of regret should such a proposal be carried out. The infusion of some enthusiasm and energy would probably form a better basis for future progress and save the ignominy of breaking up the existing institution.

The Athletic Institute.

The annual meeting was held on the evening of March 30th. The credit balance was stated to be £346 2*s.* 1*d.* The health lectures were popular and the cycling teaching had brought a distinct gain to the funds. The attendance at the classes was regular and the training had caused the majority of the members to attain a high standard of excellence. It was pointed out that the institute was the only one of the kind in the county outside London which was vested by the Education Department with authority to issue certificates of proficiency in teaching physical exercises in elementary schools and that it was growing in favour and importance. Open spaces and playing-grounds had done much to make the opportunities for recreation and exercise more within reach, full advantage having been taken of the various sports and games during the year.

Coroner's Duties.

During the month of March the city coroner has held 114 inquests. This is not the record number, but many of the inquiries have been protracted and important. It is enough to indicate the amount of work done by this official and to show that the office is one of great responsibility and involving much hard work.

April 11th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Rivers Committee and the Local Government Board.

AT the meeting of the Manchester City Council on April 6th a long discussion took place as to the present position of the corporation, the Mersey and Irwell Joint Committee and the Local Government Board in relation to the never-ending sewage difficulty. The last-named body insists on the purchase of land, apparently not caring much whether it is fit for the satisfactory treatment of sewage or not if only there are so many acres to so much population, and clings to its ancient dictum that irrigation is the proper way to purify sewage. The standard of purity required by the Joint Committee is difficult of attainment and the land at Davyhulme has been proved unsuitable for irrigation notwithstanding that in 1888 evidence was given by Dr. Frankland, Dr. Tidy, Mr. Estcourt, and others to prove that it was "loose, porous, and admirably adapted in every respect for the purpose of sewage filtration." Now, on the other hand, it is stated by Sir Bosdin Leech, the present chairman of the Rivers Committee, that it is unsuitable, that on the surface it became choked, while below the sand, instead of filtering, became a quicksand; and, further, the chemicals in the water were damaging to vegetation. Driven then to tank filtration this also failed to give a sufficiently pure effluent, so under the advice of Sir Henry Roscoe experimental filters were put down which gave satisfactory results but at an extravagant cost. The culvert scheme was next brought forward but rejected by the citizens. Now it is wished to give the biological system a careful trial on a large scale, but the Local Government Board blocks the way by insisting practically that whatever else they do land for irrigation shall be bought. Very shortly the corporation will be liable to a fine of £50 a day for not properly treating their sewage, so that there are difficulties all round. The discussion was long, many curious things were said, and if the truth must be told some who might have known better displayed unexpected ignorance. In the end, to the discredit of the council, members began to leave and there was a count out and the meeting was adjourned for a fortnight. It must be said, however, that such an occurrence is rare and that the council usually exhibits great patience during tedious discussions. The fortnight's adjournment may be profitably employed by some in obtaining clearer ideas and some additional knowledge, for one of the opponents of the bacterial scheme argued that it must fail as bacteria must have time for rest which was impossible as the flow of sewage is continuous. He advocated a good system of precipitation as the only one practicable for a place like Manchester and looked upon the other plan as "bacterial humbug." But he is really unjust to his own intelligence and that of the council. The chemist of the Rivers Committee, Mr. G. J. Fowler, has prepared a report on the experimental filters at Davyhulme which concludes as follows: "While it cannot be guaranteed that under no circumstances will a filtrate be obtained which is above the Joint Committee's numerical standard, yet with very few exceptions it has been shown that a filtrate which is incapable of undergoing putrefactive change can be constantly obtained from the cinder filter. With increased knowledge of the conditions of successful filtration of such a tank effluent as is produced in Manchester it is likely that even more satisfactory results, both as to quantity filtered and quality of the filtrate obtained, may be looked for in the future."

Manchester Literary and Philosophical Society.

An interesting ceremony took place at a special meeting of the Manchester Literary and Philosophical Society, held on March 29th, when the Wilde medal was presented to Sir Joseph Dalton Hooker. In his acknowledgment of "the great honour which the society had conferred upon him" Sir Joseph Hooker said that "Manchester held a place among his earliest botanical reminiscences." He was a collector of mosses in the first decade of the 80 years that had passed over him and was stimulated by a book with the title "Musci Britannici," by Edward Hobson of Manchester. He recalled the names of Nowell and Buxton, two of the band of working-men botanists who have for

generations served as a scientific leaven among their fellows in Manchester and South Lancashire, and said that when his friend Mr. Glover, an excellent botanist and entomologist, invited him to see his collection of insects and rare garden plants at Smedley-hill, "though this was sixty-five years ago he noticed that the latter suffered a good deal from the city smoke." But there was none to whose friendship and correspondence he looked back with greater pleasure than to that of the late Professor Williamson, who was a remarkable instance of the successful cultivation of natural history, and especially of the organisation of the fossil plants of the coal measures, while he was busily engaged in general practice. Sir Joseph Hooker "accepted the medal as a tribute to his father's memory as much as to his own exertions." The Dalton medal was then presented to Dr. Schunk, F.R.S., who is its first recipient, for the life-long services he had given for the advancement of science. Lastly, the Wilde premium of 15 guineas was presented to Mr. John Butterworth of Shaw, who has done excellent work, particularly in regard to the flora of the coal measures. He is one of the band of Lancashire working men imbued with the love of science for its own sake. In thanking the society he said he had worked for nearly 30 years with the late Professor Williamson. In his early days he had not the advantage of systematic instruction; it was "a case of the night school and solitary candle. He had pursued the study of geology purely for the love of it and had found great enjoyment among the flora of the coal measures." Will the teaching now given in our public, elementary, and other schools increase the proportion of these humbly born lovers of knowledge?

Seats for Shop Girls.

A well-attended meeting of the local branch of the National Union of Women Workers was held on March 29th at the Manchester Town-hall. In the absence of the Lord Mayor the chair was occupied by the Hon. Mrs. A. T. Lyttleton, president of the branch. The question of "seats in shops" was one of the subjects considered and a statement was circulated among the audience setting forth the evils and the cruelty of continuous standing, often resulting in serious injury to the women and girls employed in shops and restaurants. Dr. Sinclair moved a resolution strongly supporting "the Bill to amend the Law relating to Shops, and especially Clause 9, which is before the House of Commons this year." It was seconded by Dr. Wilkinson and both gentlemen spoke from the medical aspect on the evils of prolonged standing, advocating strongly more humane treatment as regards the provision of seats. Mrs. William Crossley said there were thousands who had to stand from 8.30 in the morning to 6.30 in the evening. She suggested a conference with the employers and said she had little doubt of a good result. A letter was read from one of the principal firms in Manchester saying they had for some years provided seats and expressed the wish that they should be made use of. Mrs. Lyttleton pointed out that the chief evil arose not in the shops frequented by the well-to-do but in those of a lower class, and that to deal with them legislation was necessary. The crusade in favour of seats in shops, with permission to use them, has been carried on for many years, but it would seem with little actual success. Legislation ought not to be necessary for the carrying out of so obviously humane a practice, but it seems to be. Who can say precisely where the fault lies? It probably should be pretty evenly distributed, but if the countless host of well-to-do women customers were in earnest and brought their influence to bear on the employers seats would be provided in the shops as rapidly as they could be fixed by the joiners.

April 12th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Glasgow University.

AT a meeting of the Senate on April 4th the commission from the Crown appointing Dr John Glaister to the chair of Forensic Medicine was submitted and Dr. Glaister having been introduced to the Senate and having signed the declaration *de fideli* was admitted to office in the usual form. During the past week a number of students under the direction of Dr. Gemmill, lecturer on embryology, and Dr. Rankin, demonstrator of zoology, have taken advantage of the recess to prosecute the study of practical biology at the new marine institute at Millport. The excursion has proved in every way a great success. By dredging and netting an ample supply of material has been readily obtained and the facilities and equipment offered by the laboratory have given every satisfaction. This new departure in practical work for the university students has demonstrated the excellent opportunities offered by the Millport district and institute and there can be no doubt that an increasing recognition of these will promptly follow.

The Aerial Transmission of Enteric Fever.

A paper on this subject was read before the Glasgow Philosophical Society on April 6th by Dr. John Brownlee of the Belvidere Fever Hospital. The lecturer regarded it as proved that the enteric bacillus could live in arable and other soils and he described an experiment in which he proved the same possibility in regard to ordinary dust. He also gave details of an outbreak of enteric fever which occurred in one of the city hospitals. Some few cases of the fever had been admitted and when subsequently the drains were under repair a considerable number of cases developed in all parts of the hospital. Dr. Brownlee regarded these and other instances as proofs of the theory that the germ of the disease may be transmitted through the air and advocated the pursuit of sanitary measures based on this assumption.

April 13th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Irish Medical Association.

A SPECIAL general meeting of the Irish Medical Association was held at the Royal College of Surgeons in Ireland on March 29th. The committee of council afterwards held a conference in order to consider communications received in reference to the Local Government Bill. The meeting adjourned until April 7th, when the Bill was considered in the interests of Poor-law medical officers. The Council has addressed a letter to the Chief Secretary for Ireland with particular reference to clause 58 and it is hoped that he will accede to the request made. Poor-law medical officers in Ireland were requested to take the necessary steps to obtain the assistance of their Parliamentary representative in support of certain amendments to the Bill. At the meeting of the council held on March 16th it was decided that an appeal should be made—on the advice of its law agent and the opinion of senior counsel—against the decision of the Court of Queen's Bench relative to the fee claimed by the medical officer of health of Midleton Union for evidence in a sanitary prosecution.

Dispensary Medical Officers' Substitutes.

The vexed question as to the payment of a dispensary medical man's substitute has recently been adjudicated upon in Limerick. Dr. Graham of that city required a substitute to act for him during a recent illness and he, with the sanction of the board of guardians, appointed another medical practitioner—Mr. Humphries—to act in his stead. At a meeting of the Dispensary Committee, held on March 30th and convened for the purpose of considering an application of Dr. Graham for a further extension of his sick leave, a letter was read from the Local Government Board suggesting that in future in appointments of this nature it would be wise for the committee in the interests of the sick poor to see their way to the selection of an officer who could devote his entire attention to the work. The committee recognised the wisdom of the suggestion and instead of re-appointing Mr. Humphries, who is a dispensary medical officer in large private practice, appointed to the temporary post a medical man free from public duties in the district.

The Feeling in Dublin in reference to the Army Medical Department.

The interest which is felt here in reference to the Army Medical Service has been increased rather than diminished by the strangely conflicting replies of the Royal Colleges of Physicians and Surgeons respectively to the request of the Director-General. The Council of the Royal College of Surgeons met on March 29th for the special purpose of considering the matter and after an exciting debate decided

to accept the suggestion and to nominate two surgeons for temporary service in the Army Medical Department in reliance on the pledge given by the Government that the newer reforms would be carried out. At a largely attended meeting of the President and Fellows of the Royal College of Physicians held on April 1st the following carefully considered resolution was unanimously adopted:—

Pending the issue of a warrant in accordance with the statement recently made in the House of Commons by Mr. Powell Williams, M.P., Financial Secretary to the War Office, as to prospective arrangements for improvements in the Army Medical Department, which arrangements, if carried out as indicated, would, it is believed, at once secure a competition by a sufficient number of high-class candidates to fill the vacancies that now exist in the service by competitive examination in the ordinary manner, the College is of opinion that, in the interests of its Licentiates and of the Army Medical Staff, it is not advisable that any recommendations for the temporary employment of civil surgeons for duty with Her Majesty's troops in the United Kingdom should be made by the President in accordance with the request made to him by the Director-General.

The College of Surgeons considered the somewhat vague statements as to the new warrant which emanated from Lord Lansdowne to constitute the beginning of a new era for the army surgeon and acted on that perfectly natural assumption. The other College decided on not moving until the document itself appears. The resolution of the latter—the College of Physicians—was quoted in full in the columns of the *Irish Times* of April 2nd and formed the subject of one of the numerous leading articles on the matter which have recently appeared in that journal. The general feeling in Dublin seems to be very much what is embodied in the leading article in THE LANCET of April 2nd—namely, that the Army Medical Staff and the profession are to be congratulated on the very successful issue of their controversy with the Government.

Decision of the Local Government Board with Reference to the Medical Officer of the Cashel Union Infirmary.

At the last meeting of the Cashel board of guardians held on April 7th a letter was read from the Local Government Board containing the decision of the board on the sworn inquiry held some weeks ago into the conduct of the medical officer of the workhouse in relation to trained nurses recently employed there. The letter criticised the action of the medical officer in very strong terms on the grounds, firstly, that he permitted the dispensary midwife, who was in attendance on a case of puerperal fever, to leave the workhouse and attend cases outside; secondly, when acute cases of typhus fever were admitted to the fever hospital he took no steps whatever to have the trained nurse who was in attendance on the puerperal case removed from the fever hospital although she herself called his attention to the matter, while he tacitly sanctioned her sleeping in the same room with the nurse in charge of the typhus fever case; and thirdly, the action of the medical officer in instigating the nurses to write a highly objectionable letter to the guardians was quite unjustifiable. The document goes on to say: "Under all the circumstances the Local Government Board have reluctantly come to the conclusion that the medical officer has by his conduct forfeited the confidence of the board of guardians and they (the Local Government Board) entertain serious doubts whether he should be permitted to retain his position in connexion with the workhouse." In conclusion the board suggest that on this point the guardians should convene a special meeting of themselves in order to consider the matter and intimate that in the event of their feeling justified in giving the medical officer an opportunity of retrieving his position they (the Local Government Board) will be prepared to consider the propriety of acceding to their wishes after the officer has apologised for his conduct and promised an amendment for the future. The friction and trouble which have existed between the guardians of the Cashel Union and their union medical officer have been the subject of local public interest for very many months—even years—and have occupied many columns of the local journals in the shape of letters and leading articles. Nobody seems to doubt the ability of the medical officer in question, but it is at the same time clear to everyone that he has failed to recognise the fact that he is, however able and independent, the salaried officer of the board of guardians whom he has taken pleasure in defying.

Visit of Professor Schäfer, F.R.S., to Belfast.

Dr. J. A. Lindsay, President of the Ulster Medical Society, invited the members of that society as well as several leading men of the medical profession in Ulster to a reception in the Museum, Belfast, on April 5th, to meet Professor Schäfer, F.R.S., of London, who has been spending a short holiday in Belfast. A very large number accepted Dr. Lindsay's hospitality and the entertainment was in every respect a success. Those present subsequently adjourned to the lecture-hall of the Museum, where Dr. Lindsay took the chair, and in very complimentary terms introduced Professor Schäfer, who gave an interesting address on the Causes of Glycosuria. He believed there were many causes of sugar appearing in the urine and he gave an interesting account of glycosuria caused in animals by a vegetable drug, phloridizin. The causes of glycosuria which he specially dwelt on were (1) the alimentary, (2) the nervous, (3) the renal, and (4) the pancreatic. His remarks on the kidney form were of great interest and he described certain experiments made by himself and an old Belfast student, Mr. Benjamin Moore, M.A. (who is now assistant Professor of Physiology at University College, London), to elucidate the question of pancreatic diabetes. The results are not yet completed. At the conclusion of his address Professor Schäfer was awarded a hearty vote of thanks on the motion of Dr. Redfern, seconded by Professor Cuming, M.D.

Belfast Board of Guardians.

As a result of the Poor-law elections in Belfast just declared the two lady candidates are elected and one of them is successful in two of the wards. This will necessitate another election and it is expected that another lady will come forward.

Belfast Corporation (Hospitals) Bill.

The Roman Catholic ratepayers and inhabitants of Belfast have deposited in the Private Bill Office of the House of Lords a petition asking to be heard by counsel in opposition to the Belfast Corporation (Hospitals) Bill when it is reached. The second reading in the House of Commons on April 4th was postponed until Tuesday, April 26th. The representatives of the Mater Infirmorum (the Roman Catholic) Hospital have issued in pamphlet form (27 pages) their claim, a copy of which has been sent to each Member of Parliament. They say that as the Royal Victoria Hospital has been granted a free site their hospital should be freed from ground-rent. Their ground-rent is £100 per annum and they suggest that the Belfast corporation should either pay this or provide a fund to be invested in trust for the purpose of producing the necessary annuity.

April 13th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

A Sequel to the Laporte Case.

AN account has already been given in the columns of THE LANCET of the meeting of the Society of Legal Medicine when the expert witnesses in the Laporte case, who were so violently attacked by M. Varnier on account of their report, were honoured by the passing of a resolution declaring that the documents upon which M. Varnier founded his attack were inaccurate copies of the official documents. A controversy has since been raging in the medical press between M. Varnier and M. Socquet, one of the impugned experts. M. Varnier argues that the discrepancies between the version of the evidence on which he based the attack and the official copies were merely due to a copyist's error. At the meeting of the Society of Legal Medicine held on April 4th M. Pinard read a long memorandum in which he took upon himself the responsibility for M. Varnier's charges and attempted to sustain the theory, in the face of the remarkable declaration of M. Maygrier and the evidence offered by the latter at the last meeting of the society, that the perforations found at the post-mortem examination could have been spontaneous. He also argued that the resolution passed by the society at its last meeting was too general and implied that all the documents used by M. Varnier were incorrect, whereas there was only one which had any error in it. M. Socquet took up the discussion and in a moving speech complained that he had been most violently attacked as to his skill as an expert by M. Varnier and that he had been accused by him of having been the cause of the arrest of Dr. Laporte by having sent in to the examining magistrate a summary report of only

seven lines in length which had been discussed word by word but in fact had no real existence. He demanded from M. Pinard that he should give the name of the copyist by whose error M. Varnier was deceived. The society passed another resolution declaring for the second time that what M. Varnier had called the summary report of M. Socquet was not exact.

A Loan of 1,700,000 Francs.

The University of Paris, the reconstitution of which is of so recent a date, has just accomplished the most important act of its new life—that is to say, it has taken up a loan amounting in all to 1,700,000 francs. The law, in fact, which has reconstituted the universities has given to them a civil personality: they have their own budget and their own sources of income, which are definite and assured, and they are able to contract loans on the security of these sources of income. The 1,700,000 francs which the university has borrowed will be devoted to carrying out two schemes. The greater part of this sum will be devoted to the construction of buildings for the accommodation of first year students in medicine. Up to this time the schools for these students had been housed in the most defective manner in the Rue Rataud, close to the schools of physics and chemistry. The city of Paris, to which these latter buildings belong, has courteously lent them to the university, but the city wishes to realise its property, and, besides, the students are very badly housed in their present quarters. Therefore very much more suitable buildings will be erected in the Rue Cuvier. The other portion of the loan will be devoted to the keeping-up of a laboratory of natural history at Fontainebleau. Anyway, some resolution must be definitely come to, for both the work at Fontainebleau and that in the Rue Cuvier ought to be commenced during fine weather. At the last meeting of the council of the university M. Gréard said that the negotiations relative to this loan were far advanced and the contract would be submitted without delay for the ratification of the Minister of Public Instruction.

L'Assistance Publique.

The governing body of the Assistance Publique has just held its annual meeting. The retiring board, the members of which were M. Théophile Roussel (senator and president), M. Sabran, and Dr. Thulié (vice-presidents) were re-elected with acclamation. The council entered on the discussion of the first question on the orders of the day—namely, a project for the internal regulation of hospitals and infirmaries. At the third meeting, held under the presidency of M. Sabran, the vice-president, M. Henri Monod, Home Office representative on the Assistance Publique, laid before the board the reports upon which the Home Office wished to consult the board. The following questions were submitted: 1. Are there exceptional cases where hospital physicians and surgeons can be authorised to receive fees directly from hospital patients? This question was remitted to the second and third sections. 2. Is there any room for making in public lunatic asylums special wards for the observation of those who are getting better by means of trial discharge, so that a period shall elapse between the time of their admission and their regaining full liberty? This was referred to the fourth section. 3. What is the best way of organising the Assistance Publique in the case of young discharged prisoners so as to carry out Article 19 of the Decree of Aug. 12th, 1890? This was remitted to the first section. 4. Methods of organising public assistance for legitimate children under the care of mothers who are either widows or divorced or deserted. This was referred to the first section. At the sixth meeting the chief subject of discussion was a report of Inspector-General Napias on the providing of subordinate officials for the charitable establishments. Dr. Napias considered it would be well to ask the administrative committees of hospitals that they should make it necessary that their subordinate staff should have had some professional education. M. Henry Michel, who agreed entirely with Dr. Napias, said that the professional instruction of nurses of both sexes and the examinations which establish the competence of candidates should be very simple, very practical, and as little theoretical as possible. The meeting passed two resolutions, the second one of which, proposed by M. Hebrard de Villeneuve and backed by most of his colleagues, was couched in the following terms: "That this council considers that women ought to be called to take part in all committees charged with the duty of administering public charities."

The Antitoxic Action of Nervous Tissue and Various Inert Substances upon Strychnia.

M. Toinot and M. Georges Brouardel communicated to the meeting of the Hospitals Medical Society held on March 29th some observations of M. Widal and M. Nobécourt upon the Antitoxic Action of Pulped Nervous Tissue upon Morphia and Strychnia. If a mixture of one gramme of nerve substance and a mortal dose, or even twice a mortal dose, of sulphate of strychnia is injected into a guinea-pig M. Toinot and M. Brouardel found that the animals in question invariably lived. The observers made researches into the cause of this interesting fact and found that strychnia was really present in the mixture, that it had not lost its toxic properties, that dilution of the poison made no difference, and, finally, that guinea-pigs thus experimented on, if treated with a fatal dose of strychnia forty-eight hours afterwards, always died, showing that they were neither refractory nor immune. M. Toinot and M. Brouardel also tried the effect of fatal doses of strychnia mixed with various inert substances such as charcoal, talc, potato starch, and spinach, and they found that an admixture of these substances had the same preservative effect as nerve pulp if used in the same proportion and doses. Results were just the same whether the mixture was made twenty-four or forty-eight hours previously to the injection or immediately before. The explanation of these results apparently so mysterious is in reality very simple and is easily verified by a chemical experiment. Mixtures of carbon, talc, or nerve pulp with strychnia give a filtrate which is absolutely non-poisonous to guinea pigs and which, when tested, shows not the least trace of poison, which, however, can be extracted from the material left behind on the filter. It is obvious, then, that in an injection of this mixture the poison is so fixed and held that it cannot act as a whole but is only set at liberty very gradually, and the very slowness of this action prevents a mortal dose being set at liberty at one time in the organism. Chemists know well that a solution will give up to inert bodies in certain cases that which it holds in solution and organic pulps have the same inherent properties and play the same part as inert bodies, as is evident by these experiments. These facts show, moreover, that we must not be too hasty in ascribing antitoxic properties to animal tissues.

Obituary.

The death of Dr. Worms, member of the Academy of Medicine, is just announced. He has left behind him several important works upon gout, diabetes, and the disorders of nutrition. He held the post of chief medical officer to the Chemin de Fer du Nord.—Dr. W. Martin Dürr has just died in the Hôpital de la Pitié at the age of thirty-two years. He formerly held the appointments of resident medical officer to the hospitals and head of the clinic at the Faculty of Medicine, while at the time of his death he was histologist to that body, so that he seemed destined for a brilliant future. Some years ago he was put in charge at Brest and Manbeuge of the various organisations for prophylaxis against cholera. He died in the hospital in a state of utter destitution and the resident medical officers of that establishment have published a strong protest in the daily press because the director and the financial staff of the hospital have refused to give even a shroud for his burial, while in addition the Assistance Publique, which he had served for four years as resident medical officer, have refused to pay any part of the expenses of his funeral.

April 12th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Tragic Death of a distinguished Medico-Psychologist.

BY one of those explosions of homicidal mania so frequent in Latin countries Dr. G. B. Ermacora, joint editor with Dr. Finzi of the Milanese *Rivisti di Studi Psichici*, has lost his life at the early age of thirty-eight years. Dr. Ermacora had, it seems, incurred the enmity of his cousin, the engineer Signor Piva, nephew of the well-known general officer of that name, by his having become entitled by will to a considerable fortune on which young Piva had been counting as in great part his own. The doctor on a visit to Rovigo had called on his cousin and was in the act of holding out to him the right hand of conciliation when

the latter seized a revolver lying beside him and shot Dr. Ermacora dead. Immediately thereafter Signor Piva committed suicide by blowing out his brains with a loaded carbine. The consternation and grief of the two families well known in the Alta Italia—Piva and Ermacora—may be imagined. "Among the cultivators of the physio-psychological sciences," writes a medical friend, "Dr. Ermacora excelled in acuteness of thinking power and in the austere scientific rigour of his investigation. He had recently brought to a close a series of studies on 'Telepathy' and 'Premonition,' which, in published form, attracted much attention in France, in Germany, and in Austria-Hungary." He had also an unusual command of the literature of his subject and was often appealed to by colleagues and fellow-students for the best sources of information on medico-psychological themes. He had latterly been giving much attention to the English school of "Psychical Research" and was himself the author in his *Rivista* of "annotations" on the subject which (says the writer above quoted) "will remain a model of scientific integrity and unbiased judgment." The tragic incident occurred on March 23rd.

"*Pro Montibus.*"

Following up the crusade "Pro Silvis" started by the late Professor Cantani of Naples, the Turin school has initiated a movement equally devoted to arresting the destruction of forests and to the promotion of re-planting. Under the title "Pro Montibus" a company of nature-students and medical men, most of them members of the Alpine Club, and now numbering 300, held their first meeting in the Subalpine Capital on March 26th, and set forth their programme for the protection of plants, the re-afforesting of the denuded hillsides, the regulation of the water-courses and the rehabilitation of the flood-visited tracts of upper Italy. The movement deserves all the success provisionally assured by the scientific and philanthropic distinction of its president, the senator, Count Luigi Sormani, the vice-presidents, Dr. F. Vallino and Count Cibrario, and its general secretary, Dr. L. G. Bonelli.

"*A Lurid Industry.*"

Poverty is a bad counsellor, said the Anarchist Acciarito when, just a year ago,[1] he attempted King Humbert's life; and the remark holds true in other directions than those affected by the self-styled tyrannicide or the amateur saviour of society. It is constantly suggesting and practising devices for the rehabilitation of the individual at the expense of the public and for a little private gain compromising the welfare of the community. Italy, as an exceptionally poor country, abounds in such devices, the latest of which, reported from Naples, has acquired the proportions of what a contemporary stigmatises as "una lurida industria." It is neither more nor less than this—the wholesale purchase by ragmen of the wadding or charpie used for surgical dressings in hospital and the sale of the commodity (after superficial washing) to tailors and upholsterers for the lining of mantles or overcoats and for the padding of sofas and easy-chairs. The "industry" had for some time been in full operation when Dr. Vincenzo Gauthier (professor of materia medica and therapeutics in Naples University and sanitary assessor, I believe, to the municipal authorities) was apprised of its existence and, as the result of investigations conducted by his officers, discovered and identified its chief promoters. These parties have been denounced to the "autorità giudiziaria" and will shortly be placed on their defence by the Public Prosecutor in terms of Article 320 of the Codice Penale. Meanwhile the Ufficio d'Igiene has established a vigilance service, relieved day and night, at the various hospitals and ambulances to collect and destroy by burning all the dressings and "avanzi di medicature" (medico-chirurgical appliances which have served their purpose), the great sanitary furnace at Pasconcello being the immediate destination of such refuse. Professor Gauthier's intervention comes not an hour too early. Not only wearing apparel and household furniture must have been made positively dangerous by the disgusting industry which he has just suppressed, but the fittings of cabs and railway carriages, into which padding enters so largely, would be not less open to the same sanitary objection. Thirty-six years ago THE LANCET'S commission on certain evils of railway travelling from the medical point of view dwelt emphatically on the effects of the exhalation from the woollen-stuffed seats of first- and second-class compartments when closed windows and crowded occupancy sent up the temperature. The headache and pallor and general discomfort so often complained of after a day or night's travelling under these circumstances were thus accounted for. But the "lurida industria" referred to imparts elements of mischief yet more serious. Infective diseases may become readily transmissible from the imperfectly purified or sterilised dressings employed for cab seats or railway cushions—all the more in a country where the inmates of first-class compartments have yet to be warned against "spitting outside the pocket-handkerchief," and where the standard of personal cleanliness is still at the level indicated by that tentative and perfunctorily respected "bye-law."

April 9th.

[1] THE LANCET, May 1st, 1897, pp. 1224-25.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Typhoid Fever in Victoria.

TYPHOID fever is still increasing in prevalence in Victoria. For the fortnight ending Feb. 19th the number of cases reported was: for the whole colony 427, with 43 deaths; for the metropolitan area 174 cases, with 15 deaths. For the corresponding period of 1897 the figures were: for the whole colony 220 cases, with 13 deaths; for the metropolitan area 108 cases, with 7 deaths. In some districts the disease is a perfect scourge. At a little country village named Lexton, with a population of about 140 all told, 44 cases of typhoid fever have occurred in six weeks. In this, as in most of the other instances, the water-supply appears to be the source of infection, the arrangement for the disposal of excreta and for the supply of drinking-water being as primitive and as insanitary as possible. In the metropolitan area, also, the infection is ascribed to pollution of the water-supply through the fire plugs when the pressure is low. The summer has been unique in respect of long continuance of excessive heat and drought, favouring contamination of water. The Board of Health have issued circulars for the information of the public pointing out how the water-supply became contaminated and urging all householders to boil all their drinking water and effectually filter it. The circular also deals with contamination of milk and the precautions to be taken to prevent it.

Infantile Mortality and the Milk-Supply in Melbourne.

Not only has typhoid fever been so exceedingly prevalent but the infantile mortality of the metropolitan area has gone up by leaps and bounds this summer and appears to be unquestionably due to the microbic developments in the milk which occur in the hot weather. In 1897 the Government passed a Factories and Shops Act which provided *inter alia* that in all trades the employés must be given a half-holiday once a week. The effect of giving the milkmen a half-holiday on Wednesdays is that people only get one delivery of milk early in the morning to last till the next morning and in the hot weather it will not keep. The increase in the cases of diarrhœa at the Children's Hospital on the days following the half-holiday has been most striking. When the Bill was before Parliament one of the honorary medical officers of the Children's Hospital wrote to the press prophesying what the result of the half-holiday for milkmen would be in causing infantile disease and his prediction has been completely verified.

Retirement of Dr. Manning.

As previously mentioned Dr. Norton Manning has resigned the position of Inspector-General of Insane for New South Wales. Before he retired the officers and staffs of the various asylums presented him with a very handsome address. It was illustrated with views of the various asylums and expressed the advantages the staff had enjoyed under his control, the efficiency to which the department had been raised during his long term of office and the deep regard, affection, and esteem in which he was held. Dr. Manning was also entertained at dinner by the medical profession of New South Wales. In replying to his health the guest of the evening referred to the changes which had taken place in the asylums of the colony during the thirty years

he had been connected with them. When he first took charge the buildings were prisons, the overcrowding was alarming, and the medical staff was inadequate—three medical officers for over 1000 patients in two asylums; now a competent staff of twelve has charge of nearly 4000 patients in five large, well-equipped and suitable hospitals. Dr. Manning attributed the success that has attended his work mainly to three causes—(1) that the Government allowed him to nominate and select all the members of the staff; (2) the energy, loyalty, and self-sacrifice of the members of the staff from medical officer to charge attendants; and (3) the generous help and appreciation of the medical profession. Looking to the future Dr. Manning said there was plenty of work for his successor in promoting asylums for the inebriate and for the more scientific study of insanity, especially by modern pathological methods. Dr. Eric Sinclair, superintendent of the Gladesville Asylum, has been appointed Inspector-General of the Insane in place of Dr. Manning.

The Sydney Hospital.

At a meeting of the board of directors of the Sydney Hospital on Feb. 1st Mr. Foreman called attention to the abuse of the charity and said that patients were admitted who had no right to the institution. He moved that a subcommittee be appointed to inquire into the subject. Some discussion followed pointing out the difficulties and the motion was lost. On Feb. 23rd the annual meeting of the hospital was held, his Excellency the Governor presiding. Previously to the meeting his Excellency formally opened the new pathological and bacteriological department attached to the hospital. The buildings and appliances are most complete and modern. The total cost was £3000, defrayed by a special Government grant. According to the annual report there were in the hospital on Dec. 31st, 1896, 271 patients and the admissions in 1897 were 3819. In the year those discharged cured numbered 2055; relieved, 1138; unrelieved, 266; died, 345; remaining Dec. 31st, 1897, 286; percentage of mortality on admissions, 11·8; average number of admissions per week, 73·4; largest number admitted in one week, 91; smallest ditto, 56; average number of beds occupied, 291; largest ditto, 314; smallest ditto, 268; average duration of stay in days, 24·3; number of accident and urgent cases admitted without recommendations, 1324; number of cases admitted on Government orders, 1341; number of cases admitted on subscribers' orders, 321; number of cases admitted who contributed to their maintenance, 833. Of the 345 deaths 73 died within twenty-four hours of admission. Of the deaths among medical cases 36 died from phthisis, 31 from other lung diseases, 8 from typhoid fever, and 24 from cardiac disease. Of the deaths among surgical cases 40 died from injuries and the remainder were due to diseases apart from accident. The attendances in the casualty department were 23,286; in the medical department, 22,033; in the surgical department, 12,569; in the eye department, 7040; in the ear, nose, and throat department, 5229; diseases peculiar to women, 6619; diseases of the skin department, 2897; and in the dental department, 3723. The operations performed during the year numbered 1954. The average cost per bed for 1897, including the expenditure of the Moorcliff branch, was £61 15*s.* 10*d.* The income for the year was £22,808 1*s.* 3*d.*, towards which the Government contributed £15,261 18*s.* 6*d.*—viz., £5398 16*s.* 8*d.* as subsidy on the £ for £ principle, £8813 1*s.* 10*d.* for the maintenance of pauper patients, £700 as subsidy for the Regent-street Dispensary, and £350 for rent of Moorcliff Branch Hospital. The attendance of out-patients had fallen by nearly 20 per cent. since 1895, when they numbered 123,000, and last year only 83,000.

The Medical Defence Association of Victoria.

The annual meeting of the Medical Defence Association of Victoria, Limited, was held on Feb. 24th. The report showed that a great deal of work had been done by the Council during the past year. No action at law had been defended, but assistance had been given in one case where the cause of action arose before the defendant in the case joined the association. A scale of fees had been drawn up and adopted as the recognised standard for the colony. The relations of the profession to friendly societies had been considered and in one case some concessions to medical officers were obtained. As a result of the action of the Council the fees paid for reporting infectious diseases to the Board of Health will probably be raised. The membership of the association had increased from 89 to 196. The association had a credit balance of £106. Dr. James Jamieson and Mr. Hall Owen were re-elected and Dr. P. B. Bennie was elected to the Council. The office-bearers were all re-elected.

Case of Hydatid of the Brain.

In the *Australasian Medical Gazette* for February is recorded a case of hydatid of the brain successfully operated on by Mr. O'Hara at the Alfred Hospital, Melbourne. The patient, aged thirty-six years, was admitted with aphasia and loss of power in the right arm, leg, and face. Illness began six months previously with twitching of the tongue and arm and epileptic fits. The fits lasted four months and then ceased. There was no optic neuritis at first, but this subsequently developed while under observation. The patient was trephined over the lower part of the Rolandic area. A needle drew off clear fluid. A cavity of the size of a bantam's egg was incised and drained. The evening after operation the patient had an epileptic fit. The tube was withdrawn. The wound healed and some improvement has occurred in the motion of the arm.

Case of Congenital Diaphragmatic Hernia diagnosed during Life.

At the February meeting of the Medical Society of Victoria Dr. Jeffreys Wood read notes of a case of congenital diaphragmatic hernia. The patient was aged fourteen months. The temperature at night was 97·6° F. and in the morning 95°. The pulse was 114 and the respirations were 48; the heart's apex was below the right nipple in the fourth right intercostal space. The percussion was dull on the left side of the chest and vesicular murmur was absent; posteriorly on the left side interstitial gurgling could be heard at times. When the child was inverted the lower part of the left chest became tympanitic and the note on percussion varied between tympanitic and dull, with variations in positions at different times. In consequence of the development of vomiting, constipation, and collapse it was thought that some strangulation had possibly occurred and abdominal section was performed. All the intestines were found in the left chest, but were not strangulated. The child died. There was a semi-circular deficiency in the posterior part of the left leaflet of the diaphragm 2 in. long. The spleen was in the left pleural cavity; the left lung was completely undeveloped. The peritoneum was continuous with the pleura round the opening. Death was probably due to ptomaine poisoning from impure milk.

March 2nd.

Obituary.

WILLIAM GROSVENOR, L.R.C.S., L.R.C.P. EDIN.

MR. W. GROSVENOR, of Churchdown, Gloucestershire, died suddenly from syncope on March 29th. Mr. Grosvenor was educated at Edinburgh University and also studied at Paris, taking the qualifications of L.R.C.S., L.M. Edin., in 1857, and L.R.C.P. Edin. three years later. Previously to going to Churchdown he had practised for twenty-five years in London. Mr. Grosvenor, who was in his sixty-first year at the time of his death, was held in high esteem in the neighbourhood. He leaves four sons—two of them are members of the medical profession—and three daughters. The funeral took place at Kensal-green on April 1st.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Rudolf Schneider, Extraordinary Professor of Surgery in the University of Königsberg.—Dr. S. Stricker, Professor of General and Experimental Pathology in the University of Vienna.

THE *Maryland Medical Journal* of March 26th states that the Cuvier Prize of the Paris Academy of Sciences, 1500 francs (£60) in value, has been awarded to Professor Marsh of Yale University. This prize is awarded every three years for the most noteworthy work published during that period on geology or zoology.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

WEDNESDAY, APRIL 6TH.

THE first day's proceedings of the special session of the General Council of Medical Education and Registration were reported in THE LANCET of last week, and we now report the proceedings of the second and final meeting of the session.

The late Sir Richard Quain.

The President (Sir William Turner) submitted to the Council the following minute with regard to the late Sir Richard Quain, viz.:—

That the Council convey to the family of their late President an expression of sincere sympathy and personal sorrow at the great loss which they have sustained by his decease. Appointed for five years as a Crown Representative on Nov. 17th, 1853, Sir Richard Quain was re-appointed by successive Governments for the same period of time on six successive occasions. In 1864 he was elected by the Council as one of its treasurers and held that office uninterruptedly for twenty-seven years or until his election as President in 1891. Throughout his long and unbroken membership of the Council he was conspicuous for the zeal and devotion with which he applied himself to its affairs, no less than for the sagacity and moderation with which he took part in, and ultimately guided its debates. As treasurer he was a watchful guardian of its financial position and interests and as member or chairman of successive committees he was largely concerned in the preparation of all the issues of the British Pharmacopœia and in securing for that work the position which it has deservedly attained. In every capacity he endeared himself to his colleagues by a courtesy and geniality which never failed, by an equanimity which no differences of opinion could disturb, by a dignity and graciousness befitting the holder of a representative office in a great and learned profession, and by a warmth and kindliness of heart which were never for a moment obscured. The Council has not only to offer to his family an expression of the sorrow of the entire body, but also of its sense of the personal loss which each member has individually sustained by the death of so worthy and so beloved a colleague, and of so able and so excellent a president.

The minute was approved by the Council and it was agreed that a copy of it should be sent to Miss Quain.

The Midwives Question.

The Council then went into committee on this question and resumed the debate on the motion of Dr. Glover and Dr. Atthill—

That the term "midwife" shall be defined as meaning a woman who is registered under this Act and undertakes to attend only cases of natural labour.

Dr. MACALISTER said that this was the first time that they had admitted the word "registered" into their resolutions. He could not help thinking that much of the agitation which had taken place upon this question had arisen from the adoption of the word and of the ideas that it usually connoted. Registration had been adopted in the case of the medical practitioner and in that of the dental practitioner and it was thought that if midwives were registered they would become an inferior order of medical practitioner and would in some way ally themselves to the medical or dental professions now registered and assume a position which many medical men at least thought they were not entitled to assume. There was a suggestion made by Sir William Gairdner which might do a great deal to turn the force of this objection; he suggested that midwives should be licensed. He should therefore like in speaking against the proposal in its present form to speak against the introduction of the word "registered" and to suggest that in anything they did they should substitute "licensed." It might seem only a change of words, but in fact it was something very much more than a change of words. He would move as an amendment:—

That the term "midwife" shall be defined as meaning a woman who undertakes for gain to attend cases of natural labour and who is not registered under the Medical Acts.

While moving this amendment he wished to express the opinion that it was not for this Council to attempt to draft in detail the clauses of a Bill but rather to lay down certain general propositions.

Dr. LEECH seconded the amendment.

Dr. ATTHILL said that the suggestion about licensing was in entire accordance with his views. He had all along held that the word "registered" should not be applied to women who were not fully qualified practitioners.

Dr. GLOVER said that he had no hesitation in accepting the amendment, though he did not think there was much in it. He thought that whether these women were registered or licensed they would have the same authority to do what they had got to do. They spoke of a licentiate of the Royal College of Surgeons or the Royal College of Physicians or the Apothecaries' Hall. But to save time he agreed at once to the amendment. He wished to take this opportunity of saying that he thought it very important that at this meeting they should come to a decision of a final character upon this question. He wished to tell the Council that the subject had been considered by the Council in the following years: 1872, 1877, 1878, 1879, 1882, 1884, 1889, 1890, 1894, 1895, 1897, and 1898. This was a very grave matter, and in the form in which it was presented to them now and the speciality of this meeting made their deliberations peculiarly responsible and open to public criticism. He thought that every member would agree in thinking that whether they shut the subject up altogether or whether they agreed to some form of recognition of midwives they should at any rate give a final report, which would render it unnecessary and unreasonable for them to be asked to discuss it again. He estimated that the mere money loss to which the Council had been subjected by this subject had amounted to between £1500 and £2000, and therefore it was high time that they closed the matter by coming to some very definite propositions with regard to it.

The motion of Dr. Glover and Dr. Atthill was then with drawn and the amendment of Dr. MacAlister and Dr. Leech became the substantive motion.

Dr. MCVAIL pointed out that in its present form the motion excluded the unqualified assistant, and he suggested that instead of "woman" they should use the word "person." There could be no doubt that if legislation took place and the unqualified assistant were excluded there would soon be an agitation for his inclusion.

Mr. BROWN expressed approval of this view of the case, though he said he had no wish to press an amendment.

The motion as proposed by Dr. MACALISTER was then put and adopted.

Dr. MACALISTER said he had a plan to suggest which he thought would be better than going further into the details of the Bill and the committee's report, and that was to send up to the Lord President of the Council their views as to the general principles which ought to guide any legislation in regard to midwives. With this object he had drawn up a series of resolutions and these he would submit one by one to the Council for their consideration.

The Council decided to adopt this method of procedure.

Dr. MACALISTER moved:—

That the Council adheres to its previous resolutions that it is desirable that measures should be taken to protect lying-in women of the poorer classes from the grave risks which they now incur from the unregulated practice of midwives, many of whom are ignorant and unskilled and most of whom pursue their calling without due medical supervision.

Dr. LEECH seconded this resolution.

Dr. GLOVER said that he could not very well object to it because it was esentially the report of the committee in another form.

Mr. HORSLEY concurred in what Dr. Glover had said, and pointed out that all the propositions which Dr. MacAlister was going to put forward would be found in the report of the committee. He would like to know whether the general description of the Bill, the narration of the facts, would be put before the President of the Privy Council.

Dr. MACALISTER said he did not think this would be necessary, because the President knew perfectly well what the Bill was.

Mr. HORSLEY said the President was no doubt aware of what the Bill contained but he might not be aware of the omissions, and in this narrative the committee pointed out the omissions.

The resolution was then agreed to.

Dr. MACALISTER moved and Dr. LEECH seconded the following resolution, which was adopted by the Council:—

That to this end it is desirable that every woman who not being a registered medical practitioner engages for gain in the practice of midwifery should be subjected to legal regulation and control.

Dr. MACALISTER, seconded by Dr. LEECH, next moved:—

That any measure which proposes merely to protect the title of midwife, however defined, and does not make illegal and penal the unlicensed practice of midwifery for gain cannot be regarded as satisfactory in the interests of the public health.

Dr. GLOVER said he desired to support this proposition. It was the strong feeling of the committee that without this provision they could not recommend the adoption of any Bill. It was said that Parliament was reluctant to restrict personal liberty and was against the establishment of a monopoly, but this was not a question of monopoly, it was a question of mortality; it was a case of the death of 1000 women and perhaps 1500 children every year. It was not a question of monopoly, it was a question of the earnestness of Parliament in wishing to stop this mortality.

Mr. HORSLEY thought the words "cannot be regarded as satisfactory" were hardly strong enough.

It was agreed to substitute "cannot be regarded as offering a satisfactory safeguard," and thus amended the resolution was adopted.

It was next agreed:—

That some central body should be established by Parliament whose functions should include the framing of the conditions under which midwives may be licensed and the regulations under which alone they should be allowed to practise.

Dr. MACALISTER, seconded by Dr. LEECH, then moved:—

That the conditions and regulations so framed should be subject to the approval of the General Medical Council, and if and when so approved should be issued under the authority of the State department which is concerned with the public health.

Dr. MACALISTER said that he thought the Council should have a final voice in the matter and that the conditions and regulations should be uniform throughout the country.

Dr. GLOVER called attention to the following paragraph in the report of the committee, viz.,

That since the duties proposed to be cast under the Bill on the General Medical Council could not be carried out unless a considerable portion of each sitting of the Council were devoted to that purpose, which would involve a large increase of expense, and since the funds of the Council consist solely of fees paid by medical practitioners for admission to the Medical Register in Scotland and Ireland, as well as in England and Wales, such additional duties ought not to be imposed upon the Council unless a grant be made by the Treasury to meet the expenses involved.

He thought that some stipulation of this kind should be inserted.

Dr. MACALISTER said he was afraid that the paragraph read by Dr. Glover was rather too strong if the Council had only to approve rules framed by somebody else.

The Council agreed to the resolution moved by Dr. MacAlister with this addition, moved by Dr. GLOVER and seconded by Mr. HORSLEY:—

And that provision should be made by Parliament for reimbursing the Council for any expenditure which it may have to incur in performing the duty hereinbefore referred to.

The next resolution was adopted in this form:—

That every woman before beginning to practise as a midwife in any district should be required to take out a licence to be granted by the local sanitary authority of the district, issued under the prescribed conditions and regulations, and that such licences should be subject to annual renewal and should be revocable at any time in case the holder is proved to have infringed any of the prescribed regulations.

The next two resolutions adopted were to this effect:—

That any unlicensed woman, whether calling herself midwife or not, who not being registered under the Medical Acts practises as a midwife for gain in any district, should be made liable to a substantial penalty. And, That the conditions under which licences are granted should include the production of satisfactory evidence of character and of training and experience in the conduct of natural labour and the after-care of lying-in women and new-born infants.

Dr. MACALISTER moved and Dr. LEECH seconded:—

That the regulations under which licensed women are required to practice should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the new-born infant.

Dr. GLOVER said he thought it should be the duty of the local sanitary authority to appoint medical practitioners to whom midwives might refer.

Dr. MACALISTER submitted that if the midwife found a person in danger she should be free to send for the nearest medical practitioner whom she could get.

Dr. GLOVER read to the Council the following recommendation of the committee:—

That it shall be the duty of the local sanitary authority of every district to appoint such registered medical practitioners as are willing to be so appointed, to whom midwives shall be required to apply for assistance and advice in all cases other than cases of natural labour, and under all circumstances which may be laid down by the Midwives' Board as calling for medical intervention. The local authority shall pay to every registered medical practitioner so consulted a sum of not less than one guinea and not more than two guineas; provided always that when the patient is able to pay for such medical services the local sanitary authority shall recover the fees for the same from the patient or other responsible person by ordinary process of law.

The committee, he said, attached great importance to this paragraph. The only condition under which they could consent to this new class of recognised persons was that they should be obliged to put themselves in communication with the medical profession on the occurrence of the slightest irregularity. Every medical man would not be willing to be at the beck and call of a midwife and therefore it should be laid down distinctly that it was the duty of the local sanitary authority to appoint one or more practitioners in their district.

Dr. MACALISTER said that Dr. Glover was proposing some local machinery which had nothing to do with the midwife.

Dr. GLOVER replied that the midwife must know where to look to for assistance.

The Council decided in the meantime to accept the resolution as moved by Dr. MacAlister.

Dr. GLOVER then moved:—

That it be stipulated in the Bill that it should be the duty of the local sanitary authority of every district to appoint such registered medical practitioners as are willing to be so appointed, to whom midwives shall be required to apply for assistance.

Mr. HORSLEY seconded this proposition.

Sir WILLIAM THOMSON asked whether the midwife would be able to apply for assistance to a person who was not appointed by the local sanitary authority.

Dr. GLOVER replied that this difficulty could be met. What he wished to make clear was that the midwife was not only required to apply for assistance but that her position was facilitated by a permanent appointment.

Dr. LEECH, seconded by Dr. ATTHILL, moved as an amendment:—

That it should be the duty of the local sanitary authority of every district to appoint such registered practitioners who are willing to be appointed to give assistance in those cases of labour as may necessitate by the regulation of the central board the attendance of a registered medical practitioner.

Mr. BROWN took the view that no particular person should be appointed, but that the midwife should be free to call in the medical man who was easiest reached. He thought they should make the assistance as wide and general as possible.

Dr. BRUCE asked whether it was necessary to go into all this detail. He had had considerable experience of midwifery and midwives and he had never heard of a medical man who showed any hesitation in giving assistance in a case of difficulty. He did not think that a regulation of this kind was necessary.

Dr. MACALISTER took the same view. He felt quite sure, he said, that in practice there would be no difficulty in getting the assistance of the nearest medical man.

Mr. CARTER reminded the Council that the midwife could not leave her patient and must therefore instruct someone to go for assistance. For himself he had never heard of there being any difficulty in obtaining a medical man when he was wanted.

Dr. GLOVER said that what he had in view was not the payment of medical men but the protection of lying-in women, and he would remind the Council that there were many public provisions for emergencies. There were police provisions by which a policeman was entitled to call in anyone he could get hold of to assist him, and in other countries—in France, for instance—there were emergency practitioners. Therefore he proposed that the Council should make it clear that this duty should be faced by the local sanitary authority.

After some further discussion Dr. Leech's amendment was withdrawn and the motion of Dr. Glover was defeated by a large majority.

Dr. MACALISTER said that the last resolution he had to propose was this:—

That in so far as the Bill submitted to the Council is not in accordance with the general principles above laid down the Council do not regard it as offering an adequate solution of the question under consideration and would earnestly deprecate its passing into law in its present orm.

Dr. LEECH seconded the resolution, which was also adopted.

The business in committee having been concluded the Council, on the motion of Dr. MACALISTER, seconded by Mr. BRYANT, resumed.

Dr. MACALISTER then brought up the report of the proceedings in committee on that day and the day preceding. He moved that that part of the report beginning with the words, "that the answer of the Council be to the following effect," be adopted.

Mr. BROWN seconded. He thought they had followed the more commendable course in proceeding as they had done that day. It was obvious that within the time at their command it would have been absurd to have attempted to draft a Bill which would meet the case, but they had passed this series of general resolutions and he was sure it would meet with the approval of the profession outside the Council. There was no objection to women being licensed to practise as midwives. They did not wish to throw obstacles in their way, but they did wish to prevent ignorant people from practising and the point was met very well by the resolutions.

In answer to Dr. MCVAIL Dr. MACALISTER admitted that in 1895 the Council had approved of a Midwives Registration Bill, but the resolution to that effect was not brought in in the present instance. Only those previous resolutions affirming the desirability of measures being taken to protect lying-in women of the poorer classes were included.

Dr. MCVAIL doubted if the registration resolution was not included. They should make it plain to the Privy Council if it was not included. He rather thought that the first of Dr. MacAlister's series was a resolution in which the word "registration" was used.

The PRESIDENT said that the resolution in question did not refer to registration but to the protection of lying-in women.

Dr. MCVAIL: Yes: but it does not stop there. It asks us to approve of what has formerly been passed.

The PRESIDENT: I think the Council is quite safeguarded in that.

Dr. GLOVER: We are quite in the lines of our fundamental intentions and whether it is a question as between licensing and registration we are acting quite consistently.

Dr. MCVAIL wished to make a remark or two. The Council, he said, knew that he had withdrawn his proposed resolution declaring that the Bill should not be passed by Parliament because the public safety required that any person who was to be recognised by law as a practitioner in midwifery should have a knowledge of midwifery, medicine, and surgery not less that was required for admission to the medical registration at present open to men and women equally. It was perfectly clear from the manner in which the Council had received the resolutions so ably proposed by Dr. MacAlister that afternoon that the Council had decided to send these resolutions to the Privy Council as their answer to the Lord President's request for an opinion on the Bill, but he thought it might be said that the resolutions were not the findings of the Council's committee on the Midwives Bill. There was nobody in that room who did not know that Dr. MacAlister had entirely overthrown the report of the Council's committee on the Bill. The series of resolutions proposed in committee of Council was quite a new thing. So far as he was personally concerned it did not meet his view in essence, but he would not stand in the way of its transmission to the Privy Council as the answer of the General Medical Council. It was quite true that it asked that women should be licensed annually, but it was still open for the Government and for Parliament to take the half of the recommendation and while resolving to create a new legal body of practitioners to determine at the same time that it was not necessary that they should be licensed. Parliament might say, "We shall not license them annually; we object to that." And he was quite certain of this, that when the decision of the General Medical Council reached the House of Commons the people who were promoting the Bill of which Mr. Balfour had charge would strenuously object to this licensing system, for it left a door open to all kinds of allegations being made against a licence-holder and, moreover, it was unfair to these women, who might be out at work, who were poor, or were ill, that unless they personally applied for license they should lose it or, in the case of new applicants, would not get it. In saying this he was only wishing to show what might be the possible action of Parliament. After the action taken by the Council the Bill concerning midwives would no longer be a Bill for the registration, but a Bill for the licensing, of midwives. The practically unanimous manner in which the resolutions were supported showed the very decided opinion of the Council in favour of licensing as against registration, and he thought that one effect of that would be that there would be no Midwives Act passed by Parliament this year and that they would again have an opportunity of saying whether they were parties to the creation of a new order of practitioners.

Sir CHRISTOPHER NIXON said that in seconding the proposal that Dr. MCVAIL had withdrawn the strong objection he had urged against the Midwives Bill as presented was that by registration they created a new sort of practitioner. That was completely got rid of by the proposal that there should be an annual licensing of midwives in a way similar to that in which cabdrivers and others were licensed annually. The Council had acted in a wise manner in determining to make the change, and he trusted that the proper measures would be taken to see that women practising as midwives were thoroughly trained. But the most important point of the resolutions was the penalty provided for in the case of unlicensed women practising as midwives. That was a matter that was left out of sight in the Bill presented to them. He should be glad indeed if a Bill drawn on the lines of Dr. MacAlister's resolutions were passed into law. While speaking on the previous night to a Member of Parliament he was assured that Mr. Balfour's Bill had not the slightest chance of passing this session.

Mr. HORSLEY thought it would be a great mistake if the General Medical Council were to put themselves under the Local Government Board. They were already under one Government department and that, he thought, was enough. The regulations for midwives should, in his opinion, be issued by the Midwives' Board. If the words were these: "Issued by the State Department as approved of by the General Medical Council," he should be satisfied.

The PRESIDENT said that that could be easily adjusted.

Dr. BRUCE reminded the Council that there certainly was an advantage to be obtained by the issuing of the regulations by the Local Government Board, because that Board was the one which was in communication with the medical officers of health.

Dr. MACALISTER, in order to meet Mr. Horsley's objection, moved that his fifth resolution should read as follows:—

That the conditions and regulations so framed should be subject to the approval of the General Medical Council, and if and when so approved should be issued to the local sanitary authorities by the State department which is concerned with the public health.

Mr. BROWN seconded the proposal, which was agreed to.

Mr. HORSLEY, raising another question, said that the resolutions certainly touched ordinary quackery, but quackery of an extraordinary sort was growing up because a man who took into association with himself various members of his family or several friends and formed a company might legally practise. The Council should endeavour to put an end to evasion of the spirit of the law in this way and he ventured to propose that they should adopt their own committee's recommendation:—

That no woman or any association of persons formed for the purpose shall either habitually or for gain attend, or undertake to attend, a lying-in woman unless the person attending and all the members of any association providing such attendance be licensed according to the provisions of the Act.

Mr. BROWN was quite at one with Mr. Horsley with reference to this matter, but he pointed out that it was not the subject with which the Council were now dealing. What they were dealing with were general principles on which future legislation might be based.

Dr. GLOVER: Surely there can be no harm in anticipating a possible clause in a future Bill.

Dr. MACALISTER looked upon the suggested words of Mr. Horsley as unnecessary because under the resolutions every woman practising as a midwife must be licensed.

After some conversation Mr. HORSLEY said he would not press the proposal.

The PRESIDENT: I do not think it is required. Has any other member of the Council any motion to make?

On the suggestion of Mr. BRUDENELL CARTER the word "adequate" before the phrase "safeguard in the interest of the public health" in the third resolution of the series was omitted, as was also the word "adequate" before the word "solution" in the last of the series.

The report from the committee of the Council, as amended, was then adopted unanimously and it was agreed that the President should transmit it to the Lord President as the General Medical Council's answer to the Privy Council's request for an opinion on Mr. Balfour's Bill.

The PRESIDENT, in closing the session, said that the special business for which the Council had been summoned had now been disposed of and he thought the members would

agree with him that for the resolutions they had adopted in connexion with the Midwives Registration Bill they were greatly indebted to Dr. MacAlister.

The members signified their agreement with the President by applause.

The Council rose and will meet again in regular session at the end of May next.

THE NINTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE Ninth International Congress of Hygiene and Demography was formally opened on Easter-day, April 10th, at Madrid, under the patronage of His Majesty Alfonso XIII. and the Queen Regent.

It was never hoped that the numbers attending the Congress at Madrid would equal the numbers that attended the Seventh Congress in London in 1891, or that attended the unexpectedly popular Eighth Congress in Budapest in 1894; but our Special Correspondent at Madrid informs us that the number of persons enrolled as members did not at the opening fall far short of 2000. Only 43 English delegates were announced as present.

There is reason to fear that some of the British delegates have been disappointed with regard to the promised 50 per cent. reduction on the French railways. On reaching the Spanish frontier it sufficed to show the card of identity at the booking office and the 50 per cent. reduction was at once granted so far as the Spanish lines were concerned. This was not the case at Paris. The application had to be made at the general management or offices of the Orleans Railway Company and not at the station booking offices and the application was followed by a delay of twenty-four hours. The safest course was to call on Dr. Brouardel, Dean of the Paris Faculty of Medicine and chairman of the Permanent International Committee, who obtained the tickets for all the French delegates without any difficulty; but this advice reached our office too late for us to warn those who were desirous of assisting at the opening of the Congress.

On Saturday evening there was a preliminary reception at the Conservatory of Music. Close upon 1000 delegates were present in full dress or in uniform and many were presented to the Minister of the Interior and the Governor of Madrid who were there to receive them. The orchestra of the Conservatory of Music played some selections and there was a well-supplied buffet where light refreshments were served. A great number of Germans were present, some in military uniforms, and in spite of the political tension there were also some American delegates.

On Sunday evening a gala representation was given in honour of the members of the Congress at the Spanish Theatre, an institution which corresponds in design to the *Comédie Française*.

On Monday afternoon the formal opening ceremony took place in the National Library under the presidency of the Minister of the Interior.

A soirée was held at the Athenæum on the evening of Monday, April 11th, and was well attended.

To-day (Friday) there will be a reception of the members of the Congress at the house of the Prime Minister, while on Saturday certain delegates are to have the honour of presentation at Court.

The proposed excursion to Andalusia more or less broke down. For a week before the opening of Congress the hotels of Madrid were full to overflowing with excursionists from all parts of the kingdom on their road to Seville for the Easter festivals. Fortunately these excursionists had left Madrid by the time the members of the Congress arrived. On the other hand, the prices at Seville went up from 200 to 300 per cent., so that it soon became impossible to guarantee accommodation to members of the Congress at any reasonable terms. The 50 per cent. reduction on the railway fares from Madrid to Andalusia held good excepting for the Algeciras-Bobadilla line, but most exorbitant charges are being made at the Seville hotels, and will be made up to April 25th. There is, however, another excursion which offers itself to the members of the Congress under much more favourable conditions. For the modest sum of ninety pesetas they may travel to Lisbon and back and thus see something of Portugal on easy terms. This will not be a joint excursion, but each delegate may go on any day he chooses.

Our Special Correspondent to the Congress speaks strongly of the absence of organisation on the part of the British delegates which, indeed, seems to us to require explanation. Great Britain is admittedly a pioneer country in matters of sanitation and it is wilfully lowering our position among nations that no proper precaution should be taken for Great Britain to speak with unanimous voice on some of the great topics of international interest that may be discussed at Madrid.

(FROM OUR SPECIAL CORRESPONDENT.)

PRELIMINARY ORGANISATION.

It is only too obvious that the Congress does not open under auspicious circumstances. Postponed for a year in consequence of the colonial wars in Cuba and the Philippine Islands, Spain is now threatened with a still greater contest against the United States. But not only are the foreign relations of the country strained to the utmost, internal politics also interfere with the Congress. An unforeseen combination of circumstances has resulted in the Senatorial elections taking place on the very day that the Congress holds its inaugural meeting. Now it so happens that the General Secretary, Dr. Amalio Gimeno, and the technical or acting president of the Congress, Dr. Julián Calleja, are both candidates for the Senate. The latter feels safe and can, without much risk, afford to absent himself from the contest; but it is within my knowledge that Dr. Gimeno has received some pressing telegrams from his electoral committee at Valencia, for which town he is candidate, urging him to be present on the day of the election. Dr. Gimeno has, however, determined to remain with the Congress, where his presence is absolutely necessary, though by so doing he weakens his chances of election to the Senate. Apart, also, from these special and personal considerations it will be readily imagined that the minds of all the organisers of the Congress are more or less distracted by the terrible crisis through which Spain is now passing. I have spoken to most of the secretaries of the Congress and I found them all of opinion that war with the United States was almost inevitable, and they naturally felt far more inclined to discuss the political events of the day than to devote themselves to the dull routine work of the Congress.

On Monday, April 4th, the secretaries and organisers were still in the occupation of two large rooms at the Ministry of the Interior overlooking the Puerta del Sol, which is the very centre—the heart, so to speak—of Madrid. On the Tuesday they removed to the *locale* of the Congress, the National Library and Museum, a majestic building on the Paseo de Recoletos, which is a continuation of the celebrated Prado, the fashionable strolling ground of Madrid. Large rooms surrounded by glass book-cases, where the national library is gradually accumulating, serve for the meetings of the sections, and other similar rooms for the offices of the secretaries, &c. There is no lack of space, even though all the basement is taken up by the Sanitary Exhibition.

Many of the delegates have arrived in advance, notably

Dr. Brouardel, Dr. Vallin, Dr. A. J. Martin, and the representatives of the Paris Municipal Council. The English delegates, on the contrary, are arriving late and Dr. Corfield, Dr. Poore, and Sir Douglas Galton have notified at the eleventh hour that they will not be able to attend. Thus three out of the four British representatives on the Permanent International Committee will not be present. This, of course, will greatly cripple the action of Dr. Arthur Newsholme (Brighton). The latter is on the Demographical International Permanent Committee. Surgeon-General Macpherson, delegate of the War Office, and Dr. Michael Beverley, delegate of the Norwich Medico-Chirurgical Society, were among the earliest British arrivals, but there were not a sufficient number of British delegates to convoke a meeting of the British section previously to the opening of the Congress so as to elect representative speakers and decide on a course of action. This want of organisation places the British delegation at a great disadvantage in face of the carefully prepared and well organised delegations of other countries. There are questions on which the British delegation could render considerable service. For instance, a severe contest is anticipated in regard to the drainage of Paris. Briefly the situation stands as follows It has been decided to purify the whole of the sewage of Paris by throwing it on the land at the rate of 40,000 cubic metres per hectare. Apart from the sewer farms established at Gennevillier the State has given 800 hectares and the town has bought 200 more hectares at Achères. This land will be laid out by the end of the year and it will then be possible to purify by land filtration 70,000,000 cubic metres of sewage per annum, or about half the sewage of the town. This has been done in accordance with the law of April 4th, 1889. A more recent law, that of July 4th, 1894, imposes the completion of the system in five years from that date—namely, before the opening of the great exhibition of 1900. For this purpose more land is to be secured on the Plateau de Mery-Pierrelaye and the Caps de Carrières de Poissy des Mureaux. There will then be no need to drain into and pollute the River Seine. The last-mentioned law also sanctioned a loan of 116,000,000 francs by means of a graduated tax on household property and it was calculated that this tax would not exceed the amount actually paid for the emptying of cesspools. In keeping with the decisions of the Municipal Council a prefectorial decree was issued on Aug. 8th, 1894, compelling householders to build water-closets protected by a syphon trap under the pan and an intercepting trap near the junction of the house drain and the sewers. Further it was enacted that every separate tenement consisting of three rooms should have a closet of its own. These rules implied such a revolution in the existing state of things that the house-owners of Paris have formed a syndicate to resist the application of the law. This syndicate attends to the interest generally of house-owners and issues a large weekly paper, but the main purpose is to prevent the construction of sanitary closets. Now this householders' syndicate has secretly secured the appointment of two representatives to the Madrid Congress. They are going to argue in favour of the separate system of drainage, for which there is much to be said, but under the cover of this theoretical question they hope to check the compulsory application of properly flushed and trapped closets within the houses. At this juncture a number of British delegates should intervene to show that the extensive experience acquired in England conclusively demonstrates that whatever system is applied in the streets, whether the separate system or not, there are no two systems for the interior of the houses. Indoors the two-gallon flush for the four-inch soil-pipe and syphon traps are absolutely indispensable. If this was done in a collective and impressive manner the little intrigue of the Paris proprietors' syndicate would be defeated and we might reasonably hope to find that great town satisfactorily drained by the commencement of next century.

Something also ought to be done by an organised and collective effort to restore the former useful and practical method of organisation which used to govern these International Congresses of Hygiene. As this method was destroyed by the organisers of the Congress held in London in 1891 the British delegation might now seek to repair the mischief which was done in England. At the opening ceremony the Acting President of the present Congress, Dr. Julián Calleja, pointed out the influence exercised by these Congresses over the legislatures of various countries and further expressed his conviction that the Congress now sitting would have more influence in this direction than any of the previous Congresses. For my part I see no reason justifying such an anticipation. So far as the number, the personal distinction and influence of the members attending is concerned this leaves nothing to be desired. But it does not suffice to crowd people together. Some means must be found of obtaining a collective expression of opinion. Formerly papers concluding with resolutions were carefully prepared, printed, and sent to all members before the Congress met. These papers were discussed at full sittings of the entire Congress held in the afternoons, the sections meeting in the mornings. The Congress then, in its collective capacity, voted on the five or six subjects which each member had had an opportunity of studying for some five or six weeks before the discussion. Such a vote naturally had a great influence. The vote of a section cannot have much effect unless confirmed at a general meeting of the entire Congress. Practically speaking, no such meetings are held except for the opening and closing ceremonies and such ceremonies only amount to an exchange of congratulations or words of welcome. Nor will the discussion in the sections have the influence that it might have had if the rules of this Congress had been faithfully carried out. According to these rules the papers to be read were to be accompanied with a summary written in French and Spanish, and these summaries, together with the text of resolutions, were to be circulated among the members a few weeks before the Congress met. The delegates would thus have some idea of the likely drift of the discussions and might prepare in advance suitable arguments so as to support or to combat this tendency. The resolutions resulting from such debates, though only adopted in a section, would certainly have some effect; but this rule has not been carried out. No summaries have been printed and nothing has been circulated among the members; thus no one knows what is going to be proposed or what arguments will be adduced. Fortunately the next Congress will in all probability meet in Paris in 1900 and the congresses held in France have in these respects always been the best organised. It is to be hoped, therefore, that the reign of chaos introduced in London in 1891 will come to a close at Paris in 1900.

THE OPENING CEREMONY.

SUNDAY, APRIL 10TH.

The large hall of the National Library was full to overflowing by two in the afternoon. It was a brilliant gathering. Uniforms of all nationalities, orders and decorations flashed in the bright light of what in England would be considered a fine summer afternoon. The Minister of the Interior occupied the chair, with Professor Brouardel and the Mayor of Madrid on his left side and the Governor of Madrid and Dr. Gimeno on his right side.

Dr. JULIAN GALLEJA, technical or acting President of the Congress, Dean of the Madrid Faculty of Medicine, and the President of the Superior Royal Council of Health, commenced the proceedings by addressing his respectful homages and salutations to Her Majesty the Queen Regent, who had so graciously consented to patronise the Congress. Then he spoke a few warm words of greeting and good wishes to the army and the navy which were fighting on behalf of the mother country in distant lands. The Acting President now turned and addressed himself to the foreign delegates who in such large numbers were attending the Congress. He congratulated himself that in spite of many complex difficulties all the countries of the Old and the New Worlds were represented at the Congress. From such a concourse of illustrious personages the cause of good sanitation would certainly derive considerable benefits. Hygiene did not consist of one particular science, but it was a combination of many different sciences. It was essentially a social science and was accessible to all. Science in general freely recognised the great benefits which sanitary science in particular had conferred on the whole civilised world. The public at large as well as technicians had applauded the progress accomplished, but there still remained much to be done. The universal theoretical recognition of the value of good sanitation was certainly a great moral triumph, but this did not suffice. In many countries the practical application of admitted principles was still neglected. To obtain the practical realisation of sanitary principles was the main purpose of such congresses. There were undoubtedly many obstacles with which scientific

sanitary reformers were but too familiar. For instance, and standing foremost, was the financial difficulty. Secondly, there was the interested opposition, notably of manufacturers and others, who find that sanitary regulations interfere with their processes of manufacture, &c. Then, again, there was the great question of personal liberty, the inviolability of the domicile, &c., which had sometimes to be set aside so as to enforce measures necessary for the preservation of public health. All these objections undoubtedly had been ably confuted by scientific sanitary reformers; still it was necessary, not only to reason out these matters, but to obtain the support of Governments so as to be able to carry out the necessary reforms. The influencing of Governments was the most practical and useful result likely to accrue from this Congress. Former congresses had already done much in this direction, but the speaker, in conclusion, expressed his conviction that the present Congress would have still greater weight on the Governments of the civilised world, adding that "the exceptional circumstances through which my beloved country is passing are, in truth, very sad and very extraordinary; nevertheless, the Spanish spirit will know how to face all obstacles as it has done in the past, and will bring all its solicitude to bear, so that nothing shall be wanting at this solemnity of peace and concord." This sentence was very loudly applauded.

Dr. BROUARDEL, Dean of the Paris Faculty of Medicine, replied on behalf of the Permanent International Committee and remarked that they had been well inspired when at Budapest they selected Madrid for their next place of meeting. The welcome they had received was no surprise, for the affability of the Spanish people had become proverbial. Their hosts had even succeeded in setting aside for a moment their terrible anxieties so as to worthily receive their guests. But this effort would not prove in vain. The patronage accorded to the Congress by the Queen Regent and the presence of the Minister of the Interior were an earnest proof of the desire of the country to advance in the cause of sanitary progress. It was most necessary that the authorities themselves should be convinced of the urgency of public health legislation. At the Official International Conferences of Venice, Paris, &c., they had already received much aid from the representatives of the Spanish Government. This would be the last congress held during this century and it must be acknowledged that the present century had done more for public health than any number of previous centuries. The century had commenced with the discovery of Jenner and was concluding by gathering the fruits of the work of Pasteur. Many old dangers to health had now disappeared. But it was more especially to the honour of our time to have understood that there are collective duties and principles that must be enforced and appreciated. The doctrine of human solidarity is now, more and more understood, nationally and internationally. We can, it is well known, prevent certain diseases. The mass of the people expect us to do so. We shall be traitors to our cause and their trust if we fail in this duty.

A German delegate, whose name was not announced, spoke on behalf of the German Government. He insisted on the growing importance of social questions, on the hatred growing amid the working classes, and the early advent of the class war. These dangers, however, might in a measure be met by good sanitary legislation destined to afford more comfort and better health to the working people.

Professor GRÜBER, on behalf of the Austrian Government, said that Spain had given the best proof of her earnestness in the cause of sanitary reform by organising so successfully the present brilliant gathering in spite of the extraordinary difficulties of the present political situation.

The delegate of the Belgian Government declared that Belgium was always eager to participate in all such congresses; and a Japanese delegate spoke, saying that Japan would not fail to avail itself of the lessons taught by the Congress.

Dr. E. VALLIN, recently Army Medical Inspector, rose in the name of the French delegation to express their thanks to the brave, generous, and chivalrous Spanish nation which was now passing so well and with so much dignity through a most difficult period in its politics. In France but little was known about Spanish hygiene, yet Spain had made great efforts of late and he felt convinced that they would have something to learn from their visit. For instance, there had been a good fight in favour of compulsory vaccination. Then all medical matters had been centralised. The teaching of hygiene was introduced into primary schools and Spain had a Society of Hygiene which published an official organ. But he had been more particularly impressed by the action of a society called the Friends of Art. This society had organised an annual festival which was called the "*Fête* of the Tree." Its object was to improve the climate and the resources of the country by the planting of trees. On that day all the school-children formed a procession under august patronage, and each child solemnly planted a tree. Generally, in the hope of reviving the silk trade, it was a mulberry tree, or else it was a linden, the royal tree of Spain. Thus at an early age the children were taught to create public property, to look forward to the future, and to do something for the public good. In this poetical manner the coming generation was taught a useful moral lesson that would have the practical result of improving the beauty and healthiness of the country.

While these speeches were being delivered there was confusion and heart-burning among the few scattered members of the British delegation. The nations were to respond in alphabetical order, and as England is spelt "Inglaterra" in Spanish we should follow close upon France. But the British delegation had not met; no one knew who was present, although it was generally felt that a Government representative should speak, and the only Government representatives present were Surgeon-General Macpherson from the War Office and Dr. Thomas Oliver from the Home Office, where he is concerned in the application of the Factory Acts. Dr. Oliver, however, was not in evening dress and Surgeon-General Macpherson, though in uniform, refused to speak and urged that the learned bodies rather than the Government officials should take the lead. Then at the very last moment Dr. Donald MacAlister, representing the University of Cambridge, was persuaded to mount the platform. Fortunately his brilliant and expansive scarlet robe produced a great effect, for his appearance elicited loud applause before he had been able to utter a single word. Speaking in English, Dr. MACALISTER said that it would be unfortunate indeed if, amid such cordial greetings, not a word was uttered on behalf of England. He spoke in the name of the University of Cambridge and as a member of the General Medical Council and on behalf of the profession generally. He need hardly say how deeply the profession in England sympathised with every effort made to improve the sanitary conditions of the Continent. Their sympathy with the international character of sanitary reform had, he trusted, found practical expression in the organisation of the International Congress of Hygiene held in London in 1891. He hoped all who were then present would recall that great gathering as a testimony of the goodwill of the British people. With regard to Spain in particular he could not remain silent. For many years Spain and England had been allies and victorious allies. Allied again to-day, not for war but for the work of peace, he hoped that their efforts would be equally glorious.

A Hungarian delegate spoke next and trusted that the Congress would see by the printed reports which the Hungarian delegation had brought with them, that great sanitary progress was being achieved in Hungary.

Dr. GIRARD, Surgeon-Major in the United States Army, was now called upon to respond. To avoid causing any irritation he had refrained from putting on his uniform and was not at all anxious to speak. The occupants of the platform, on their side, applauded his approach, and Dr. Girard so as not to incur the risk of any aggressive interruptions, spoke so low that it was impossible to hear him at a few feet from the platform. He said that he desired to express on behalf of the official delegation from the United States, their high appreciation of the very kind reception which had been shown them since their arrival in Spain. This was particularly gratifying under the present political circumstances. He wished the Congress all the success it so well deserved and hoped that before the Congress had terminated its labours the difficulties existing between Spain and the United States would be smoothed over.

The occupants of the platform could not but be gratified by these judicious remarks, while the people who crowded the hall could not hear what had occurred. Thus this episode which, if less prudently managed, might have given rise to some demonstration which would have still further complicated the political situation, passed quietly, and terminated in a graceful exchange of bows as the American delegate withdrew from the platform. Thus it

will be seen that to attend these Congresses it is sometimes necessary to possess some knowledge of diplomacy as well as of hygiene.

After a Dutch delegate had spoken in French, Professor PAGLIANI of Turin, formerly director of the Public Health Department at Rome, delivered a very eloquent speech in his own language. He saluted the Spanish people, who were upholding so well their national dignity. Spain had always been devoted to ideal conceptions and the grand ideal pursued by the sanitary reformers would travel onwards serenely in spite of temporary international convulsions. As hygienists they were not divided by political, religious, or class considerations; being devoted only to the interests of humanity, they could act independently of all these causes of dissension.

This speech, I noticed, elicited special applause from the Papal Nuncio, who was sitting close to the speaker. These words of peace were, however, followed by an emphatic political manifestation.

Dr. J. J. R. DE ARELLANO, delegate of the Mexican Government, received a regular ovation in consequence of the help offered to Spain by the Mexican Republic. Dr. de Arellano improved on this by speaking of Spain as his mother country. His Government, he added, had accepted the invitation to the Congress, firstly, so as to make a further manifestation of sympathy for Spain and, secondly, to show that the Mexican Government was anxious to associate itself with all progressive scientific movements. Finally, he wished success to the Congress so that it might benefit science and redound to the glory of Spain. These words were naturally greeted with frantic cheers. A Norwegian delegate was also much applauded because he spoke in Spanish; and then Dr. GUILLAUME, Director of the Swiss Statistical Bureau, said a few graceful words on behalf of Switzerland. The series of foreign speeches was brought to a close by General MAHMOUD PACHA, Director of the Constantinople School of Medicine, who represented the Turkish Government at the Venice and other official interpational conferences. Mahmoud Pacha brought the Congress back from politics into the wider and safer sphere of humanitarianism. He presented greetings and good wishes to the Congress from his august master the Sultan and declared that the Sublime Porte was eager to follow in the path of sanitary reform. He thought that science had no country, especially sanitary science, and that international sanitary congresses might well become the first link that would ultimately establish the solidarity of humanity. Thus it was reserved to the Turkish delegate to sweep away those political allusions which in spite of every precaution had trespassed upon the neutrality of the Congress, and this he did by invoking the most advanced principles of Western Europe.

The Mayor of Madrid now assured the members of the Congress of the hearty welcome they would receive from the population of Madrid, words of greeting which were still further emphasised by the Governor of the Province.

The GENERAL SECRETARY (Dr. Amalio Gimeno), who was warmly cheered by the Congress, said that never had such an assembly met under such adverse circumstances. Spain, though reluctant in the shedding of human blood, was lavish in the sacrifices it was ready to make to maintain its dignity. In spite of the present threat of war the Congress would testify to the country's devotion to the works of peace. At Budapest he had insisted on the scientific progress made in Spain, he had invited the Congress to come and see for themselves, and now he begged to thank all the foreign nations who had so well responded to this invitation.

Señor CAPDEPÓN, Minister of the Interior, then rose to pronounce the formal opening of the Congress, and to welcome, in the name of the Spanish Government, all the delegates present. This terminated the proceedings.

In the evening a gala performance was given at the Spanish Theatre, which in spite of its great size was well filled by the members of the Congress, who alone were admitted. The most celebrated actors rendered what may be considered as one of the classics of the Spanish stage, *La Niña Boba*, by Lope de Vega. The part of the heroine, played by Señora Maria Guerrero, was especially appreciated, and I am informed that this distinguished actress will soon appear on a London stage.

THE SECTIONS.

MONDAY, APRIL 11TH.

The various sections of the Congress commenced to work this morning at about 10 o'clock. Some confusion existed, and the readers of several papers failed to reach their sections when their names were called out. But the next on the list took their places and thus the business proceeded. The Bacteriological Section was one of the first to get to work, and here Dr. SPRONCH, Professor at the Utrecht University, dealt with the question of sero-therapeutic accidents. At the Wilhelmina Hospital, Amsterdam, out of 220 inoculations of serum, consisting in all of 16·7 cubic centimetres per patient, there had been 22·7 per cent. of accidents and a mortality of 20·9 per cent. But when the serum was heated, out of 103 patients treated with 18·1 cubic centimetres the accidents were reduced to the proportion of 8·7 per cent. and the deaths to 10·6 per cent. Adding to these figures those of the St. Elizabeth Hospital of Haarlem the total was 282 patients treated with 19·8 cubic centimetres of serum, resulting in 21 per cent. of accidents and 18·5 per cent. of deaths. But when the serum was heated, out of 198 cases treated with 19·6 cubic centimetres of serum there were only 5·4 per cent. of accidents and 13·1 per cent. of deaths.

In the section on Urban Hygiene Dr. LUIS MENENDER NOVO read a paper on the Treatment of Sewage. He thought this was the most difficult of all sanitary problems and that the employment of electricity or of chemicals had not given satisfactory results. The oldest system, which had prevailed many centuries ago in Spain, was to throw the sewage on the land, and modern science tended to show that, after all, this was the best method. Pathogenic germs were destroyed before the sewage reached a depth of 7 ft. The best ground was that which gave the freest passage to the water and to air. But the land must be allowed to rest occasionally, and no hard-and-fast rule could be established as to the amount of sewage it could receive. Means also should be taken to prevent the invasion of surrounding lands by the sewage.

Dr. KOEHLER of Berlin protested that these conclusions should have been printed and circulated among the members before the Congress met. At Dantzic and at Berlin they had good results from discharging raw sewage on the land, while at Brunswick they had had all manner of trouble in attempting a chemical treatment of the sewage.

Professor PUTZEYS of Liège, Belgium, agreed with the German delegates who had urged that there could be no general rule but each case should be treated on its own merits. In Belgium there was a great difference in places close to each other. At Liège, towards the German frontier, a very shallow soil covered a chalk deposit. Here irrigation was impossible and the sewage would sink through cracks in the chalk and pollute the water springs. Westwards of Liège the ground was of heavy clay, letting water through only when cracked by the heat of summer. To the north there was suitable sandy soil, which might be used by the inhabitants of Liège but was too far for the town of Brussels.

Dr. HENRIOT of Reims related that excellent results had been obtained for his town by throwing the raw sewage on the land.

Mr. ADOLPHE SMITH explained that this was not possible in, notably, the crowded manufacturing districts of Lancashire and Yorkshire, and as a novelty of the day, he described the working of the septic tank at Exeter.

M. DELAUNEY (France) concluded the discussion in this section by remarking that all the speakers had agreed that where suitable land could be obtained it was best to trust to land filtration. The strenuous efforts made to improve chemical processes proved that they were not satisfactory. If not absolutely perfect yet of all known methods that of utilising the soil had given the best results.

During the afternoon some members of the Congress went to witness the Basque game of tennis called *Jai-Alai*. Others went to the Faculty of Medicine, or to the hospitals of St. John and the Infant Jesus, while not a few went to the bull-fight. This evening there is a reception at the Athenæum Literary Club.

THE SANITARY EXHIBITION.

The Sanitary Exhibition is well advanced as exhibitions go, for there never was an exhibition ready on the opening day. In this case, however, quite enough is ready to interest the visitors. It is, of course, a small exhibition. Spain has but little to show in respect to manufactured apparatus, &c., bearing on health questions. Such objects have still to be imported from England, France, or Germany; but, on the other hand, there is a fair display of projects, and, better still, some record of work actually achieved. Several large rooms on the ground floor of the National Library (a building which corresponds to the British Museum in

London) have been devoted to this purpose. On the walls are hung coloured drawings illustrating various schemes of sanitary improvement; for instance, a design for a very extensive asylum for the insane, surrounded by gardens and fields, to supply wholesome agricultural occupation for the patients; then there is the plan of a large civil hospital prepared by Señor Mariano Belmas, architect, and editor of *La Higiene Popular*, a monthly publication which seeks to spread a knowledge of modern sanitation throughout Spain. Señor Belmas is the principal organiser of the exhibition and he exhibits his drawings and plans for the drainage of the towns of Salamanca and San Fernando. For these towns he proposes to employ hard-ware pipes of British manufacture, excepting of course for the main collecting sewers. Señor Wagon, civil engineer, has also a similar project for the town of Bilbao, the peculiar feature being that the sewers do not receive all the rain-water. In some districts the gutters suffice to drain off the rain-water and thus partially relieve the sewers from the sudden pressure due to storm-water. Another project, for the drainage of Barcelona, is exhibited by Señor Favia, a well-known engineer and sanitary reformer of that important commercial and manufacturing centre. Señor Fort, an architect, has a project for a popular hydropathic establishment by which he proposes that every form of bath, douche, &c., should be provided at a minimum cost for persons who have but slender means.

All these, however, are but projects. Dr. Rubio, one of the leading surgeons of Spain, has devoted a considerable portion of his private means to create a small model surgical hospital. With the aid of other subscriptions beside his own this hospital has been constructed and is now in working order. It is known as the Rubio Institute. The plans will be exhibited at the Congress and the delegates will be invited to visit the institute itself. The Laboratory of San Sebastian has a stall showing the chemical processes employed for the control of the wine and food supplies of that fashionable seaside resort. Then the military and naval departments of the State have also a laboratory and many interesting exhibits, including a plan for the Madrid military hospital prepared by the military engineering department. The Spanish Red Cross Association have a section to themselves and, among other things, they exhibit an operating table made exclusively of nickel and glass.

Dr. Comenge, Director of the Urban Sanitary Services of Barcelona, has supplied a number of diagrams showing the death-rate, birth-rate, &c., of that town. These statistics are shown by graphics which are not, as usual, drawn in parallel, vertical, or horizontal columns, but are shown in a series of circles within circles. According to the figures thus displayed, during the five years 1873 to 1877 inclusive, the average yearly death-rate was equal to 34·5 per 1000 of the population of Barcelona. The births during the same period were equal to 31·0 per 1000. Thus it will be seen that the birth-rate was below the death-rate. The authorities at Barcelona boast that great improvements have been accomplished, and in proof point to the fact that the death-rate shows a yearly average for the last five years ending 1897 of only 23·7 per 1000; this undoubtedly appears at first sight to be a great improvement, but much of its significance is destroyed by the fact that the birth-rate has fallen to 22 per 1000. Thus for a fall of 10·8 per 1000 in the death-rate there is an accompanying reduction of 9 per 1000 in the birth-rate. The great difference is, that the birth-rate is now 1·7 less than the death-rate and twenty years ago it used to be 3·5 less than the death-rate. What, however, will be of greater interest to the British public is the low death-rate from tuberculosis noticed at Barcelona. Out of each 100 deaths the proportion attributed to tuberculosis was equal in 1894 to 13·1 per cent.; in 1895 to 15·5 per cent.; in 1896 to 13·5 per cent.; and in 1897 to 14·6 per cent. During the last year the proportion of deaths due to tuberculosis in Paris was set down at 25·5 per cent. Speaking of vital statistics, Dr. César Chicote, chief of the San Sebastian Municipal Laboratory, told me that this town was divided into two parts by a large boulevard. On one side stood the old town with leaking cesspools, bad drainage, narrow streets, and many other unwholesome conditions, and here the death-rate was equal to 32 per 1000. On the other side of the boulevard stood the new town with wide streets, better drained houses, and a complete system of sewers, and the death-rate was only 17 per 1000. On my objecting that probably only rich people lived in the new town Dr. Chicote replied that such was not the case and that there were also many poor peopl in this the newest part of San Sebastian.

The Seville Institute of Hygiene, of which the chief director is Dr. Leopoldo Murga, has an interesting stall where no less than 1800 microscopic preparations will be shown dealing with many phases of bacteriological science. There are notably statistics and all the original documents relating to 480 inoculations practised by this institution for the prevention of rabies. These were commenced on March 3rd, 1895, and the figures are carried forward to March 31st of the present year. During that time it was possible to obtain possession of the dogs which had bitten 128 patients, and by inoculating rabbits it was demonstrated that these dogs were really suffering from hydrophobia. As for the other cases, the dogs were only supposed to have been rabid, but the fact could not be proved. In any case, of the 480 patients inoculated, including the 128 cases about which no doubts could be entertained, only 2 died from hydrophobia after inoculation. The process adopted is known as Dr. Ferran's intensive method—that is to say, contrary to the practice at the Pasteur Institute, the virus is not attenuated.

Among the foreign nationalities the municipalities of Paris and Berlin have voted sums so that exhibits illustrating the sanitary progress of those towns may be sent to Madrid. The town of Budapest, where the last International Congress of Hygiene was held, also sends plans and explanatory pamphlets. The Dutch contribute a number of contrivances to prevent accidents and diseases in factories, workshops, and various industries. Even from so far as Mexico come a number of well-illustrated and elaborate publications setting forth the sanitary improvements effected in that country and photographs of hospitals, slaughter-houses, asylums, &c., built in Mexico.

Several disinfecting stoves also have arrived. These are of French manufacture. The firm of Jules le Blanc, Paris, has stoves of two types: the non-portable and the portable. The former vary in size. The smallest model measures 1·05 by 1·50 metres, weighs 1050 kilogrammes, and costs £112. The boiler for the same weighs 850 kilogrammes and costs £68. The largest size measures 1·50 by 2·30 metres, weighs 2800 kilogrammes, and costs £192, with a boiler weighing 1250 kilogrammes and costing £92. The portable stoves which can be drawn from place to place by horses measure from 1·05 by 1·70 metres to 1·30 by 2·0 metres. They weigh from 1850 to 3500 kilogrammes and cost from £200 to £280. The heat produced within the stove is equal to 115° C., and on an average 12 litres of water and 3 kilogrammes of coal are consumed for each operation which should last twenty minutes. Another French disinfecting stove is manufactured by M. Fernand Debaitre, likewise of Paris. This is a smaller stove, for it measures only 0·800 by 1·600 metres. It weighs about 1400 kilogrammes and costs £100. The great advantage offered is a simpler method of opening and shutting, which is accomplished at once by one single movement instead of by numerous bolts or screws. This reduces the risk of the accidents which are more likely to occur where there are numerous fastenings, as one of these may, through neglect, remain open. A two-horse-power boiler accompanies this stove, weighs 500 kilogrammes and costs £46. It will be seen therefore that this apparatus has, in any case, the advantage of cheapness; but it also met with the approval of the late Dr. Péan, who introduced it at the International Hospital of Paris, and it is employed by the administration of the Belgian State railways. The Madrid Municipality exhibits its disinfecting apparatus, which includes the stoves of Messrs. Geneste and Herscher, the French sanitary engineers. These stoves have often been described before, are well known, and employed in various parts of Europe. Altogether the exhibition is an important and an interesting annex to the Congress.

SCIENTIFIC GLASS-BLOWING.—Mr. Thomas Bolas, F.C.S., F.I.C., author of "Glass-blowing and Glass-working," gave an interesting demonstration before the members of the Society of Designers on Tuesday, April 5th. Among other things he showed how it is possible to blow bulbs for chemical and other purposes from a solid glass rod and exhibited a syringe constructed entirely of glass—that is to say, without the need of cotton packing. A new form of draughtsman's reservoir pen which he has invented should prove useful in applying caustic liquids in surgery and also in the application of medicaments to the eye.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated—viz.:—

Monday, April 4th:

Anatomy and Physiology.—Charles Isherwood Brierley, Yorkshire College, Leeds; Tom Bower Fawley, Yorkshire College, Leeds, and Mr. Cooke's School of Anatomy and Physiology; Frederick A. Worsley Drinkwater and William Thomas Shields, Victoria University College, Liverpool; George Rowland Roberts, St. Thomas's Hospital; James Frederick Morrison, Queen's College, Belfast; Edward Garneys Wales, Cambridge University; Sydney Lionel Prall, Stanley Hodgson, Guy's Hospital; Bernard Joseph Ward, Charles Birch, and Arthur James Arch, Mason College, Birmingham; Edward Fow Fisher and Robert Howard Newby Smith, London Hospital; John M. Herbert Munro, University College, Bristol; and Walter Rix Read, St. Bartholomew's Hospital.

Twenty-six gentlemen were referred in both subjects for three months.

Tuesday, April 5th:

Anatomy and Physiology.—George Ernest Waugh, Cambridge University and University College, London; Charles Seymour Parker, University College, London; Charles Haldane D. Robbs, Bertram S. Osmond Maunsell, and Harry Robinson Humby, St. Bartholomew's Hospital; Walter Turner Haydon and Wilfrid Fawssett, St. Thomas's Hospital; Charles Edgar Blackstone and Joseph Strickland Goodall, Middlesex Hospital; Louis Edward Stamm, John Evans, and Lionel Pern, Guy's Hospital; Alfred McCabe-Dallas, Bombay University and Guy's Hospital; James Edward Collins, London and Guy's Hospital; Louis Stephen Shoosmith and Samuel Donaldson, St. Mary's Hospital; William Payne and Henry Doyle Brice, Westminster Hospital; William Ronald Kirkness, King's College, London; Leonard Douglas Saunders and Reginald Temple Harrison, St. George's Hospital; Harold Edward Ridewood and Arthur Beaumont Waller, London Hospital; and Percy North Gleig, Charing Cross Hospital.

Twelve gentlemen were referred in both subjects, three in anatomy only and three in physiology only, for three months.

Wednesday, April 6th:

Anatomy and Physiology.—Hugh George Rashleigh, Arthur Carr Osburn, Ernest Frederick Reeve, Alfred D. Eskell Kennard, and Kenneth Weldon Goadby, Guy's Hospital; George Jacks Humphreys, John Caruthers Sale, and Ambrose Hilton John, St. Bartholomew's Hospital; Langton Fuller Hanbury, Robert Leonard Beane, and Owen Binns Gauntlett, St. Thomas's Hospital; Arthur Robartes Wellington, St. Mary's Hospital; Herbert Edward Crawley, Oxford University and St. Mary's Hospital; Edward Faulknor Ackery, Charing-cross Hospital; Charles H. Farley Bailey and Ernest Rock Carling, Westminster Hospital; Edgar W. Fox Dolman, King's College, London; Reginald J. Lambart Sladen, Charles Edward Ham, and George Sowden, London Hospital; Bransby Yule, University College, London; Adrian Caddy, St. George's Hospital; and Thomas Sanders, Cambridge University.

Anatomy only.—Alfred Newman Leathem, Charing-cross Hospital; and William Robert Ellicott, Cambridge University and Mr. Cooke's School of Anatomy and Physiology.

Eleven gentlemen were referred in both subjects and two in physiology for three months.

Thursday, April 7th:

Anatomy and Physiology.—William Spencer Lewis, Owens College, Manchester, and Mason College, Birmingham; Arthur Thomson Marshall, King's College, London; John Pugh Jones, University College of South Wales, Cardiff; Charles Montague Neale May and Oswald J. S. Damian, St. George's Hospital; Dudley Sheridan Skelton and Theophilus William Morcom, London Hospital; Sidney James Ormond, Thomas Arnold Matthews, Claude Tessier, Arthur C. Horner Gray, Michael Abdy Collins, Beethold Muir, and Hugh Kirbell Lacey, Guy's Hospital; Charles de Zouche Marshall, Albert Francis Miskin, Charles Ambrose Palmer, Harold Upcott, and Horace Haward Kiddle, St. Thomas's Hospital; William John Morrish and Cecil William Bond, St. Mary's Hospital; Albert Edward Thomas, Arthur Hastings Bostock, and Colin Sadler Hawes, St. Bartholomew's Hospital; George V. Hamlyn Fairhall, Westminster Hospital; and William Stanley Rooke, University College, London.

Ten gentlemen were referred in both subjects for three months.

Saturday, April 9th:

Anatomy and Physiology.—Perry Praime Toldt, King's College, London; Richard Smelling Roper, George Thomas Willan, Josh E. Lionel Bates, and George S. Clifford Hayes, Guy's Hospital; Frederick Ernest Wilson, Guy's Hospital and University College, London; Darrell Winn Bishop and Gerald Morgan Soper, St. Mary's Hospital; Herbert George Clitherow, Harold Rowe Jeremy and Edward Spencer Scott, London Hospital; Thomas E. Cecil Cole, St. Bartholomew's Hospital; Percy Alfred Hayne, St. George's Hospital; and Frederick Eustace Anley, Charing-cross Hospital.

Physiology only.—David Thomas Jones, Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; Alexander Apfell Vernon, Long Island College, New York, and Mr. Cooke's School of Anatomy and Physiology; and Edward Green, Cambridge University and King's College, London.

Twelve gentlemen were referred in both subjects, one in anatomy and one in physiology only for three months.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates at the Primary Examination have passed in the subjects indicated:—

PART I.

Biology.—T. J. M. Clapperton, King's College Hospital, and A. J. Simmons, Birmingham.

Chemistry.—R. P. N. Bluett, Glasgow and St. Mary's Hospital; W. E. Cuthbertson, Bristol and Glasgow; T. D. Hemans, St. Thomas's Hospital; S. F. Hickman, Royal Free Hospital; J. E. Howrowd, Leeds; A. Kellgren, Royal Free Hospital; and H. O. Sutcliffe, Cambridge.

Materia Medica and Pharmacy.—W. P. Allen, Birmingham; R. P. N. Bluett, Glasgow and St. Mary's Hospital; E. Coulthard, Royal Free Hospital; W. E. Cuthbertson, Bristol and Glasgow; A. G. C. Davies, Guy's Hospital; S. R. Dudley, St. Bartholomew's Hospital; A. J. Kennedy and P. W. Robinson, Edinburgh; L. L. G. Thorpe, University College Hospital; and A. Wolpe, Würzburg.

PART II.

Anatomy.—W. Alcock, Sheffield; H. F. Bellamy, Charing-cross Hospital; R. P. N. Bluett, Glasgow and St. Mary's Hospital; E. Courtauld, Royal Free Hospital; C. L. Driscoll, Charing-cross Hospital; D. R. T. Griffiths, Guy's Hospital; W. T. Harris, St. Thomas's Hospital; E. H. Kenny, Manchester; A. M. Marval, Royal Free Hospital; D. W. Purkis, St. Bartholomew's Hospital; H. Richardson, Leeds; C. S. Scott, St. Bartholomew's Hospital; F. A. Segreda, Guy's Hospital; F. E. Shean, London Hospital; H. H. Sloane, St. Bartholomew's Hospital; W. S. Snell, Edinburgh and St. Mary's Hospital; W. Sykes, Manchester; and J. A. West, St. Bartholomew's Hospital.

Physiology.—J. C. M. Bailey, St. Bartholomew's Hospital; H. F. Bellamy, Charing-cross Hospital; R. P. N. Bluett, Glasgow and St. Mary's Hospital; R. V. Cowey, Edinburgh; A. W. H. Grant, Charing-cross Hospital; W. T. Harris, St. Thomas's Hospital; E. H. Kenny, Manchester; A. M. Marval, Royal Free Hospital; D. W. Purkis, St. Bartholomew's Hospital; H. Richardson, Leeds; C. S. Scott, St. Bartholomew's Hospital; F. A. Segreda, Guy's Hospital; H. H. Sloane, St. Bartholomew's Hospital; W. S. Snell, Edinburgh and St. Mary's Hospital; A. C. Stark, Westminster Hospital; W. Sykes, Manchester; and J. A. West, St. Bartholomew's Hospital.

MR. A. B. HARRIS, M.D. St. And., M.R.C.S. Eng., J.P., has been elected a member of the Falmouth Corporation.

MEDICAL MAGISTRATES. — Mr. R. Williams, L.R.C.P. Irel., M.R.C.S. Eng. of Wrexham, and Mr. R. L. Roberts, M.D. Lond., of Ruabon, have been appointed magistrates for Denbighshire.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bonn:* Dr. Hermann Petersen has been recognised as *privat-docent* of Surgery.—*Breslau:* Dr. G. Born, Extraordinary Professor of Anatomy, has been made an honorary professor.—*Budapest:* Dr. Josef Bäcker, First Assistant in the Obstetric clinic, and Dr. Hugo Feleki, have been recognised as *privat-docenten* of Midwifery and Gynæcology.—*Heidelberg:* Dr. Gottlieb has been appointed Professor of Pharmacology in place of the late Dr. Schroeder. Dr. Hammer has been recognised as *privat-docent* of Internal Medicine.—*Turieff:* Dr. Muratoff has been appointed to the chair of Midwifery and Gynæcology in place of Dr. Gubaroff.—*Leipzig:* Dr. Max Seiffert has been recognised as *privat-docent* of Pædiatry and Dr. Franz Hoffmann as *privat-docent* of Physiology.—*St. Petersburg (Military Medical Academy):* Dr. Kajan has been recognised as *privat-docent* of Surgery.—*Tübingen:* Dr. Carl Grunert has been recognised as *privat-docent* of Ophthalmology.—*Warsaw:* Dr. Shcherbakoff has been appointed to the chair of Clinical Therapeutics.—*Würzburg:* Dr. Anton Bühler has been recognised as *privat-docent* of Anatomy.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is the prize list for the winter session 1897–98:—Descriptive Anatomy: Junior.—A. Charles, first prize (£3) and medal; and R. H. Oulton, second prize (£1) and certificate. Senior—J. P. Byrne, first prize (£3) and medal; and C. R. Byrne, second prize (£1) and certificate. Practical Anatomy: First year—R. H. Oulton, first prize (£3) and medal; and T. C. Fitzgerald, second prize (£1) and certificate. Second year—C. R. Boyce, first prize (£3) and medal; and J. F. Peart, second prize (£1) and certificate. Third year—J. S. P. Stewart first prize (£3) and medal; and F. G. Fitzgerald, second prize (£1) and certificate. Practice of Medicine: G. W. Little, first prize (£3) and medal; and J. S. P. Stewart, second prize (£1) and certificate. Surgery: D. A. Fitzgerald, first prize (£3) and medal; and H. H. Swanzy, second prize (£1) and certificate. Midwifery: D. A. Fitzgerald, first prize (£3) and medal; and M. Gavin, second prize (£1) and certificate. Physiology: J. F. Peart, first prize (£3) and medal; and J. P. Byrne, second prize (£1) and certificate. Chemistry:

Miss M. J. Shire, first prize (£3) and medal; and L. C. E. Murphy and W. J. O'Doherty (equal), second prize (£1) and certificate. Pathology: J. S. P. Stewart, first prize (£3) and medal; and S. R. Godkin, second prize (£1) and certificate. Physics: Miss M. J. Shire, first prize (£3) and medal; and W. B. A. Moore, second prize (£1) and certificate.

PRESENTATIONS TO MEDICAL MEN.—At a meeting on March 29th of the Brixham ambulance classes in connexion with the Great Western Railway ambulance class, on the occasion of distributing the certificates and badges to the successful candidates, Mr. George C. Searle, M.R.C.S. Eng., of Brixham, Devon, was the recipient of a Tantalus case in recognition of his instructive lectures to the class.—Dr. Taylor Grant, late medical officer of health of Shanghai, has been presented with a silver tea service and also a numerously signed address from members of the foreign and native communities engrossed on vellum and handsomely bound in morocco. He was also presented with a farewell address by the members of the medical profession in Shanghai.—At an evening entertainment on Jan. 27th last, in the Barnsley-road board school, Wombwell, in connexion with the St. John Ambulance Association, Mr. D. B. Foley, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., the lecturer of the classes, was the recipient of a marble clock and bronzes.—Mr. John Joule, L.S.A., who had been in practice for some time at Somersham, on his leaving the village was presented by the inhabitants with an illuminated address, an umbrella, and a gold-nibbed swan fountain pen.—During the past winter, at Blagdon, under the auspices of the Axbridge District Technical Committee, a series of lectures have been given to the ambulance classes for men and nursing classes for women by Mr. T. O. Halliwell, L.R.C.P. Lond., M.R.C.S. Eng., and on the recent conclusion of the lectures Mr. Halliwell received from the ladies the gift of a hall-lamp as a token of appreciation of his services.—At the meeting of the Torquay Gardeners' Association held on April 1st an illuminated address was presented to Mr. R. Hamilton Ramsay, M.D., C.M. Glasg., in recognition of the valuable services which he had rendered to the association.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Treatment of Habitual Drunkards.

THE Home Secretary has arranged to introduce and explain the provisions of the Bill with regard to the treatment of habitual drunkards on Monday, April 25th.

The Army Medical Department.

The following question in the name of Mr. Carson appears in the notice paper, viz.:—"To ask the Financial Secretary to the War Office whether the Royal College of Physicians in Ireland, acting in the interests of the public and of the Army Medical Department, has refused, as asked by the War Office, to nominate two civil surgeons to serve as surgeons with the army in the United Kingdom and at what time the reforms in the Army Medical Department promised by the Secretary of State for War will be carried into effect."

Midwives Registration Bill.

The second reading of this Bill stands as the first order on Wednesday, May 11th, but whether it is taken then depends on the progress made with the Irish Local Government Bill. According to a resolution of the House the latter measure enjoys precedence over all other orders whenever it is put down and the intention of the Government is to take its various stages *de die in diem*. If, therefore, as is by no means improbable, the Committee stage is still in progress on May 11th nothing can be done then with the Midwives Registration Bill.

HOUSE OF COMMONS.

TUESDAY, APRIL 5TH.

Examinations for Sanitary Inspectors.

Lord Edmond Fitzmaurice asked the President of the Local Government Board if he was prepared to give effect to the recommendations of the Committee appointed by the Local Government Board in 1892 to frame a scheme for a Conjoint Board of Examination for Sanitary Inspectors for the purpose set out in the Public Health Act, 1891, s. 108 (2) (d), whether the Sanitary Institute had, with the approval of the Local Government Board, enjoyed a monopoly of the privilege of such examination since the aforesaid Act was passed; and whether other bodies had applied for recognition of their examination for this purpose; and if so, the reasons why a similar recognition to that accorded to the Sanitary Institute had not been given in their case.—Mr. Chaplain replied that the Sanitary Institute was the only body that had as yet been authorised under the Act in question. Their application was received before that of any other association; subsequently applications were made by other bodies, and no authorisation had yet been given in those cases in consequence of the desire of the Local Government Board to secure the constitution of one Joint Board of Examination, to include representatives of the Sanitary Institute and other associations referred to. A committee consisting of representatives of the different bodies was appointed on the recommendation of the Board to consider a scheme for this purpose. The Board had hoped that as the result of conferences difficulties which had arisen would be met, but as yet he regretted to say this had not been the case. If these difficulties were not removed without delay it would be necessary for him to take action at once.

A Case of Rabies.

Mr. Walter LONG, in reply to Mr. McKenna, said that a case of rabies occurred in Devonshire some six weeks prior to the revocation of the muzzling order in that county, but the dog was one which was believed to have been exposed to infection some six months before it was killed and which had, in consequence, been strictly isolated and kept under close supervision. The action taken by the Board of Agriculture and the local authority at the time of the original outbreak rendered the extension of the order unnecessary.

Foreign Milk.

Mr. Wingfield-Digby asked the President of the Local Government Board whether he was aware that milk from abroad, strongly impregnated with poisonous acids, was being landed in this country and though there was no guarantee to show whether the said milk came from pure and sanitary dairies or from insanitary dairies and diseased animals yet this impregnated and stale stuff was allowed to be sold as fresh new milk to the detriment of public health and the discouragement of the British farmer and all honest traders; and, if he was aware of these facts, would the Government take immediate steps to put an end to this practice.—Mr. Chaplin replied: I am not aware that the facts are as stated in the question. If I had such information it would, of course, command my attention. There is one case, I am aware, in which it is alleged that in a particular instance milk which was supposed to have come from abroad contained 40 grains of boric acid to the gallon, but proceedings in that case have been instituted and it is now awaiting decision.

Death in Prison.

Mr. Davitt addressed to the Home Secretary a series of questions with reference to the treatment and death in prison of a man named Richard Holton who had been committed to prison for seven days in default of paying a fine of five shillings by the Aston magistrates.—Sir M. White Ridley replied: I have not had time as yet to consider the report of the inquest in this case, which is one that requires to be carefully looked into; but I am anxious to give the hon. Member the fullest information possible, and the facts, so far as I have been able to ascertain them, are these. The prisoner's health on reception was recorded as good; two days after he complained of sickness, was treated in his cell, and ordered to rest for two days. At the end of the two days commencing lung trouble was discovered. He was admitted to hospital and became seriously ill. He was unfit for removal on the day for his discharge, suffering from pneumonia of both lungs, but refused to have his wife informed until the following day, when two telegrams were sent at his dictation, the first to a wrong address which the prisoner himself gave. The wife arrived at the prison at a quarter to 11 at night, and the governor, being informed by the medical officer that the prisoner though dangerously ill might last a week, refused her admission and advised her to call early the next morning. The usual regulations as to visits are suspended in cases of serious illness, and the governor has an unfettered discretion in the matter. In the present case he appears to have committed a grave error of judgment which the commissioners deeply regret; but the governor is a humane man and I see no reason to doubt that in acting as he did, contrary both to the spirit and letter of the regulations, he acted in the *bonâ fide* belief that the life of the prisoner was not in immediate danger.

The Institute of Preventive Medicine.

Mr. Samuel Smith asked the Home Secretary whether the licence for the practice of vivisection of the British Institute of Preventive Medicine would be transferred to the new building on the Embankment contrary to the wish of the people of London, as shown by the petition to this House signed by 183,700 persons.—Sir M. White Ridley replied: Yes, after a very full consideration of every aspect of the question I have not thought it possible to refuse to transfer the registration of the Institute to their new and more suitable premises in Grosvenor-road.

Prosser's Well at Maidstone.

Mr. Henry J. Wilson asked the Secretary to the Treasury, in view of the fact that the chemical officers of the Inland Revenue were appointed referees in disputed cases of adulteration under the Sale of Food and Drugs Act, and that water was specially excluded from the operation of that Act under Clause 3, would he state whether it was in any way the duty of the chemical officers to undertake the analysis of water for sanitary purposes and act as referees in disputed cases and under what authority the chemical officers of the Inland Revenue recently analysed the water taken from a well at Maidstone, known as Prosser's Well, and in their report expressed the opinion that the water was not liable to contamination; whether, as a consequence of such report, the application to the court to close the well was refused; was he aware that this well was in close proximity to houses in which no less than 14 cases of enteric fever occurred during the recent epidemic; and whether, seeing that the report was not signed by the chief of the laboratory, the action of these chemical officers was sanctioned by the President of the Local Government Board.—Mr. Hanbury said that the question only appeared on the notice paper that morning and asked further time to prepare his answer to it.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALEXANDER, J. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg, has been appointed Medical Officer for the Armley Sanitary District and the Workhouse of the Bramley Union.

BLAIR, G. M., M.B., Ch.B. Glasg., has been appointed House Physician to the Royal Hospital for Diseases of the Chest, City-road, London.

BOVEY, THOS. W. W., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Physician to the Norfolk and Norwich Hospital, Norwich.

BOWIE, J. C., M.B., C.M. Aberd., has been appointed Medical Officer and Public Vaccinator for the parishes of Sandsting and Aithsting, Shetland.

BRUCE, J., M.B., C.M. Edin., has been appointed an Honorary Medical Officer to the Leanchoil Hospital, Forres.

BURTON, H., L.R.C.P. Irel., M.R.C.S., has been appointed Medical Officer of Health by the Marple Urban District Council.

CHILDE, C. P., F.R.C.S., L.R.C.P. Lond., has been appointed an Honorary Medical Officer to the St. John's Convalescent Home, Southsea.

CRAWFORD, D., M.B., C.M. Edin., F.R.C.S., has been appointed an Honorary Surgeon to the Stanley Hospital, Liverpool.

DU CANE, EDGAR, B.A., M.B., B.Ch., has been appointed Resident Medical Officer to Christ College, Brecon.

FAIRBANKS, WM., M.D. Edin., C.M., has been appointed Medical Officer for the Workhouse of the Wells Union.

FOWLER, J. S., M.B., C.M., M.R.C.P. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed Extra-mural Clinical Tutor to the Edinburgh Royal Infirmary.

HICKMANN, J. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Coleford Sanitary District of the Frome Union.

HODGSON, G. G. G., L.R.C.P. Lond., M.R.C.S., has been appointed Police Surgeon for the Chertsey Division, Surrey, vice H. E. Daniell resigned.

MACLENNAN, R. M., M.B., C.M. Aberd., has been appointed an Honorary Medical Officer to the Leanchoil Hospital, Forres.

MASON, F. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the No. 4 District of the Flaxton Out-relief Union.

MAXWELL, J. B., B.A. Cantab., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Royal Hospital for Diseases of the Chest, City-road, London.

MILWARD, VICTOR F., B.A., M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Surgical Officer to the General Hospital, Birmingham.

RENSHAW, C. J., M.D. St. And., M.R.C.S., has been re-appointed Medical Officer of Health by the Ashton-upon-Mersey Urban District Council.

ROBERTS, G. W., M.D. St. And., L.R.C.P. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer of Health by the Denbigh Urban District Council.

ROBINSON, E. S., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Stourport Urban District Council.

ROWE, W. T., L.R.C.P. Lond., M.R.C.S., has been appointed a House Surgeon to the West London Hospital, Hammersmith-road, W.

SCOTT, F. G., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Gillingham Sanitary District of the Medway Union.

SMITH, J. W., M.D. Edin., C.M., has been re-appointed Medical Officer of Health by the Ryton Urban District Council.

STABB, ARTHUR F., M.B., B.C. Cantab., M.R.C.P., has been appointed Assistant Obstetric Physician to St. George's Hospital, London.

TURNER, A. C., M.B., C.M. Edin., has been appointed an Assistant Medical Officer to the Fisherton Asylum, Salisbury.

WILSON, A., M.B., C.M. Glasg., has been appointed Ettles Lecturer at Inverness.

YOUNG, J. Y. S., M.B., C.M. Edin., has been appointed a Resident Medical Officer to the Convalescent House, Corstorphine, Edinburgh.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRKENHEAD UNION.—Assistant Medical Officer for the Infirmary, Workhouse, and Schools. Salary £80 per annum, with board, washing, and apartments, but no extra fees. Applications to the Clerk to the Guardians, Clerk's Offices, 45, Hamilton-square, Birkenhead.

BOROUGH OF MIDDLESBROUGH.—Medical Officer of Health. Salary £350 per annum, payable monthly. Applications to the Town Clerk, Middlesbrough.

CHESTER GENERAL INFIRMARY.—Assistant House Surgeon for one year. Salary £40 per annum, with residence and maintenance in the house.

CITY OF LONDON FREEMEN'S ORPHAN SCHOOL AND THE LONDON AND ROGERS ALMSHOUSES, Ferndale-road, Brixton.—Medical Officer, married. Salary £125 per annum. Applications to the Town Clerk's Office, Guildhall, E.C.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary £100 per annum, with board, &c.

FLINTSHIRE DISPENSARY.—Resident House Surgeon. Salary £120 a year, with furnished house, rent and taxes free, also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum. Applications to the Secretary, Board-room, Bagillt-street, Holywell.

GENERAL HOSPITAL, Nottingham.—House Surgeon for two years. Salary £100, rising £10 a year to £120.

GENERAL INFIRMARY, Gloucester, and GLOUCESTERSHIRE EYE INSTITUTION, Gloucester.—Assistant Surgeon.

HANTS COUNTY ASYLUM, Fareham.—Third Assistant Medical Officer, unmarried. Salary £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance.

HOSPITAL FOR WOMEN AND CHILDREN at Leeds.—Non-resident House Surgeon for twelve months. Salary £90.

MIDDLESBROUGH COUNTY BOROUGH ASYLUM, Cleveland, Yorkshire.—Assistant Medical Officer, single. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months, board, apartments, and washing provided.

ROUSAY PARISH COUNCIL, Orkney.—Resident Medical Officer. Salary £51 sterling per annum. Applications to the Clerk of the Parish Council, Rousay, Orkney.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer for two years, unmarried. Salary £100 per annum, with board and lodging.

ROYAL CORNWALL INFIRMARY, Truro.—Honorary Ophthalmic Surgeon.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners.

SCARBOROUGH HOSPITAL.—Senior and Junior Resident House Surgeons. The former for twelve months, salary £80 per annum, with board and lodging, and the latter for six months, salary at the rate of £50 per annum, with board and lodging.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary £30 per annum, with board, lodging, and washing.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, London.—Honorary Surgeon and Honorary Assistant Surgeons. Applications to Mr. T. J. Savage, 60, Moorgate-street, E.C.

THE HOSPITAL OF ST. FRANCIS, 145, New Kent-road, London, S.E.—Assistant Surgeon and Assistant Physician (out-patients only).

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon for one year. Salary £50 per annum, with board, residence, &c.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon for about two months. Salary 3 guineas a week, with board, washing, and travelling expenses. Also House Physician, and to act as Medical Registrar and Pathologist, for one year. Salary £100 a year, with board, lodging, and washing. Also House Surgeon, and to act as Surgical Registrar, for one year. Salary £100 a year, with board, lodging, and washing.

YORK DISPENSARY.—Resident Medical Officer to visit and attend (including midwifery), the sick poor at their own homes, unmarried. Salary £150 a year, with furnished apartments, coals, and gas. Applications to W. Draper, Esq., De Grey House, York.

Births, Marriages, and Deaths.

BIRTHS.

BERRINGTON-STONER.—On April 9th, at Rio Lodge, Hove, the wife of C. Berrington-Stoner, D.D.S., L.D.S., of a son.

BUCKMASTER.—On April 5th, at 16, Northwick-terrace, N.W., the wife of George A. Buckmaster, M.D., of a daughter.

BROOM.—On Feb. 14th, 1898, at Sandgate, near Brisbane, Queensland, the wife of Arthur Robert Broom, M.R.C.S. Eng., L.R.C.P. Edin., of a son.

CULMER.—On March 30th, at Nassau, Bahamas, the wife of John J. Culmer, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

MEYRICK-JONES.—On April 8th, at Church-street, Crewkerne, Somerset, the wife of A. M. Meyrick-Jones, M.B., B.S., F.R.C.S., of a son.

STANLEY.—On April 2nd, at Brabourne, Kent, the wife of Hubert Stanley, M.B. Cantab., M.R.C.S., L.R.C.P., of twins—boy and girl.

SYLVESTER.—On April 8th, at Leiston, Suffolk, the wife of Herbert Mayris Sylvester, M.R.C.S. Eng., of a son.

WAINEWRIGHT.—On April 2nd, at 39, Lee-terrace, Blackheath, the wife of Robert S. Wainewright, M.D. Lond., of a daughter.

MARRIAGES.

SAVORY—LEIGH BENNETT.—On April 13th, at Thrybergh, by the Rev. Gray Granville, rector of Ilam, uncle of the bride, assisted by the Rev. Canon Bartlet, Horace Savory, M.A., M.B., of Haileybury College, to Mary Ellinor Leigh, second daughter of the Rev. Canon Leigh Bennett.

SEAL—WARN.—On March 12th, at St. Paul's Cathedral, Calcutta, Charles Edward Baldwin Seal, M.R.C.S., L.R.C.P., of Darjeeling, to Jessie, second daughter of William Warn, of Tetbury, Gloucestershire.

DEATH.

KING.—On April 7th, at the English Nursing Home, Cairo, Thomas Percy King, M.B., B.C. Cantab., M.R.C.S., son of the late Dr. Thomas King, of Rochford, Essex.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 14th, 1898.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
April 8	30·24	S.W.	0·08	110	69	45	51	58	Fine
,, 9	29·83	S.W.	0·45	104	62	50	50	52	Cloudy
,, 10	29·82	S.W.	0·08	83	57	52	53	55	Cloudy
,, 11	29·76	W.	0·19	105	62	48	49	52	Cloudy
,, 12	29·57	N.W.	...	94	57	45	45	47	Cloudy
,, 13	30·05	S.W.	...	103	61	40	45	47	Hazy
,, 14	29·85	S.W.	...	65	54	46	48	53	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (18th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.).

WEDNESDAY (20th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.).

THURSDAY (21st).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.).

FRIDAY (22nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (23rd).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.) St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (19th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. P. White: (1) Intestinal Obstruction due to Cicatricial Stricture of the Small Intestine; (2) Columnar-celled Carcinoma of the Œsophagus.—Mr. d'Este Emery: Secondary Growths from a Case of Carcinoma of the Breast.—Mr. G. B. Hunt: Extreme Contraction of the Stomach with some remarks on the Pathology of the Condition.—Dr. L. Dickinson: An Aneurysm of the Thoracic Aorta which Ruptured Externally.—Dr. P. Weber: Liver showing an Early Interlobular Type of Cirrhosis from a Case of Suppurative Pylephlebitis.—Dr. E. Bradford: Hæmatoma in a Hydronephrotic Kidney.—Dr. Garrod: A Case of Carcinoma of the Œsophagus Perforating the Aorta.—Dr. L. Freyberger: (1) A Brain with Three subsequent Hæmorrhages and a Heart from the same Case showing a well-developed Musculus Papillaris on the Mitral Valve; (2) The Minute Structure of an Anæmic Infarct of the Lung. Card Specimens:—Dr. C. D. Green: (1) A Stomach with Two Perforating Ulcers and a Fistulous Communication with the Colon; (2) A Lobulated Fibroma of the Nipple.

WEDNESDAY (20th).—ROYAL METEOROLOGICAL SOCIETY (Institution of Civil Engineers, Gt. George-street, Westminster, S.W.).—7.30 P.M. Papers:—Major H. E. Rawson: Anticyclonic Systems and their Movements.—Hon. F. A. Rollo Russell: Results of Observations on Haze and Transparency in 1897.

ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Mr. H. Morland: Exhibition of Diatoms.

NORTH-WEST LONDON CLINICAL SOCIETY (North-West London Hospital).—8 P.M. Exhibition of Cases.

THURSDAY (21st).—SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Clinical Cases. Paper:—Mr. H. T. Pechell: On the Use of Ormsby's Ether Inhaler in General and in Dental Surgery, with remarks on Etherization and on Dilute Solutions of Chloroform.

FRIDAY (22nd).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. F. Taylor and Mr. A. D. Fripp: A Case in which a Renal Calculus was Detected by the Roentgen Rays and successfully Removed.—Dr. J. R. Bradford: A Case of Thrombosis of the Superior Mesenteric Vein causing Intestinal Obstruction.—Mr. R. Johnson: A Case of Tuberculous Peritonitis in which Symptoms of Intestinal Obstruction resulted probably from Thrombosis of the Superior Mesenteric Vein.—Dr. L. Dickinson and Mr. W. A. Hubert: Raynaud's Gangrene in connexion with Parturition.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

MONDAY (18th).—THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8 P.M. Lr. G. Reid: Sanitary Appliances.

WEDNESDAY (20th).—EVELINA HOSPITAL (Southwark-bridge-road, S.E.).—4.30 P.M. Mr. S. Stephenson: Ophthalmia in Newly-born Children. (Post-Graduate Course.)

THURSDAY (21st).—THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8 P.M. Mr. J. W. Clarke: Details of Plumbers' Work.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

UNSOUGHT PUBLICITY.

DR. THOMAS G. NICHOLSON writes to us to say that he recently took a house at Marlow and that paragraphs promptly appeared in the local journals unknown to, and unsought by, himself. On his return to town he found a letter awaiting him from the editor of the "principal paper" asking for a paragraph containing personal particulars. Dr. Nicholson naturally enough replied that he could do no such thing, although he had no doubt that the editor was actuated by the kindliest of motives. The mistaken kindness of friends and would-be friends has before now placed medical men in a very unpleasant situation, but in these days of commercialism the only thing to do is to follow Dr. Nicholson's example—namely, protest and, if possible, prevent such action.

POLITICS OR PRACTICE.

To the Editors of THE LANCET.

SIRS,—There has appeared quite recently in several local papers this advertisement:—

> "WANTED, a RESIDENT MEDICAL PRACTITIONER for eight large villages. A splendid opening for an energetic man who would attend to his profession.—Address for particulars, Mr. —— of ——."

I applied for particulars and received a letter which purported to come from Mr. —— making an appointment for me to meet Mr. X. I wired to Mr. —— suggesting a more convenient day and received a letter from Mr. X agreeing to my plan. I was rather puzzled to account for both letters being apparently *written by one hand.* On my arrival I was met by Mr. ——, who had been deputed by Mr. X. to take me to the latter's house, and as we journeyed thither I learned that Mr. —— was acting only as advertising agent and had otherwise nothing to do with the matter. He said that Mr. X. had just been defeated in the county council election by the resident medical man, of whose existence I had not heard when I set out on my voyage of discovery; that the said practitioner was a red-hot politician, and that, of course, he could not attend to politics and his practice, and that some people were complaining of the practitioner's neglecting them.

When we arrived at a road branching off to Mr. X.'s house I became curious to know where the doctor lived. "Straight on that way, near the bottom of the village," said the deputy. "Thank you," said I, "Good day, I will go on and see him"; and I left Mr. ——. I found

the doctor knew all about it. One man had been down already, and did not come near him. He, however, did not think the chances very good. Mr. —— had voluntarily assured the doctor of his acting only as an agent in the business, of his regret and disapproval, and of his personal intention to retain him for the family doctor as he had always been. Though I do not for an instant suggest that Mr. X. is not animated by the most disinterested motives (by exactly the same public spirit, indeed, as no doubt prompted the offer of his services to his neighbours as their county councillor) still I hope that my plain narrative of the facts will prevent all other medical men seeking an opening from proposing to supply his "want" in this case.

I am, Sirs, yours faithfully,

March 29th, 1898. THOS. M. WATT.

THE TREATMENT OF OTORRHŒA.

DR. J. R. LOGAN of the Liverpool Infirmary for Children, writing in the *Caledonian Medical Journal*, recommends that in otorrhœa the auditory meatus should be cleansed by a preliminary syringing or douching followed by wiping with a series of cotton-wool swabs or brushes. If these are sufficiently soft and made to project for an inch or more beyond the point of the probe to which they are attached they furnish a safe and very efficient means of removing the discharge. For subsequently keeping the meatus clean he prefers the double cyanide of zinc and mercury, a substance which was introduced as a surgical dressing by Lord Lister in 1893. There are two varieties of it in the market, one of them having the natural white colour and the other being tinted pink by means of rosolane (hydrochloride of mauvine). The coloured salt when rubbed in a mortar with water forms a soft flocculent powder, which remains much better in suspension than the white substance. The proportion usually employed is one part of the cyanide to twelve or twenty of water, and two or three drops of the warm mixture are instilled into the deepest part of the meatus by means of a fine glass pipette, the point of which is provided with a piece of crow-quill sized rubber tube projecting about 1 in. beyond the glass. This is repeated two or three times a week, but if convenient it may be done daily. By this means a recent case of otorrhœa may be kept absolutely sweet and the most profuse and offensive discharge may be rendered quite free from smell by a single operation.

A QUESTION OF TREATMENT.

To the Editors of THE LANCET.

SIRS,—Can any of your readers kindly offer a hint as to treatment in a case of redness of the integument of the nose? The patient is a woman, aged twenty-eight years, and she used to suffer frequently from dyspepsia, but under appropriate dietary this is seldom *en évidence* now. The trouble seems to be chiefly due to dilatation of the small veins and to be passive in character, but the colour occasionally becomes vividly red and this chiefly when, owing to some indiscretion, an attack of indigestion occurs. Massage appears to have but little influence on the case.

I am, Sirs, yours faithfully,

April 11th, 1898. VENULE.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—I desire to draw the attention of charitable members of the profession to the case of the widow and family (five in number) of the late John Page Hentsch, M.R.C.S.Eng. and L.S.A., of Coldharbour-lane, Brixton, S.W. Mr. Hentsch died in January last after an illness of nearly a year's duration, leaving those dependent upon him totally unprovided for. By the aid of friends it is hoped to provide for three of the children, but pecuniary help is wanted to tide the family over the present period of distress. I shall be glad to receive and acknowledge on behalf of the widow and family any contributions which may be sent to me.

I am, Sirs, yours faithfully,

410, Brixton-road, S.W., April 11th, 1898. G. DAVID KNIGHT.

WANTED A HOME.

To the Editors of THE LANCET.

SIRS,—May I ask if you or any of your readers know of any home where a lady can be received who a year ago underwent the operation of colotomy for stoppage of the bowels? She would require medical and nursing attention and board. She has £52 a year and is sixty-six years old.

I am, Sirs, yours faithfully,

April 12th, 1898. G. S.

"AN OBSTINATE CASE OF HERPES."

To the Editors of THE LANCET.

SIRS,—I have had in my hospital and private practice several such cases of chronic or recurrent herpes præputialis as is described by Mr. J. Firench Blake in THE LANCET of April 9th. He should be quite sure of the absence of a specific cause and should ascertain whether his patient's wife suffers from leucorrhœa; if so and this is cured the herpes will probably disappear. Excessive coitus is, of course, a frequent cause. In several cases I have seen well-marked varicose veins in the prepuce and around the glans. In two of these cases I have tied such veins and the herpes disappeared permanently. I agree with Unna in thinking that many of these recurrent cases are due to the compression of nerve terminals brought about by venous engorgement, and certainly find that most cases exhibit more or less enlarged veins. As regards treatment, if any one of the above-mentioned causes be present it should be remedied. If the foreskin be long it should be removed. Sponging with cold water should be practised morning and night. The herpes having been for the time being removed coitus should be forbidden for some weeks and glycerine and tannin, or, better still, sulphate of copper (20 gr. to 1 oz.), or sulphate of zinc (40 gr. to 1 oz.), applied to the part on lint. Tincture hamamelidis may often also be found useful, but whichever is selected it should be frequently removed, the part washed, and the application renewed, and in all cases the foreskin should be separated from the glans by the lint. Greasy applications should never be applied during the interval of the attacks and during the attack I think that cocaine while relieving the irritation tends to increase the trouble.

I am, Sirs, yours faithfully,

Frognal, N.W., April 11th, 1898. G. HAY REYNOLDS, M.B. Aberd.

TO CONTRADICT A RUMOUR.

To the Editors of THE LANCET.

SIRS,—It has come to the knowledge of the directors of Dr. Tibbles' Vi-Cocoa (1898) Limited, that a report is in circulation that a Mr. Harness is in some way connected with or interested in the business of Dr. Tibbles' Vi-cocoa (1898) Limited. Will you permit me to contradict this report publicly in your columns? It is wholly without foundation. I speak with authority on the matter, for I am now secretary to the present Vi-Cocoa Company; I was secretary to the former Vi-Cocoa Company during the whole period of its existence; and I was in the employ of the owners of the business before either company was formed. Hence I am in a position to state positively that no person of the name of Harness has ever been in any way concerned or interested in or in any way connected with that business or either company.

I am, Sirs, yours faithfully,

G. BROOKE SMALLEY,

Secretary to Dr. Tibbles' Vi-Cocoa (1898) Ltd.

Bunhill-row, London, E.C., April 13th, 1898.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your last issue, under the head of "Appointments," you have it that Dr. Bond is re-appointed medical officer of health for Chepstow. It is an error. I am medical officer of health for the urban district of Chepstow, Dr. Bond holds a large *combined* district of which the Chepstow rural district forms part; hence the mistake.

I am, Sirs, yours truly,

Melrose House, Chepstow, April 12th, 1898. R. P. KING.

*** We regret the error.—ED. L.

Dr. T. R. Atkinson.—The names of numerous institutions will be found in our advertisement columns, also in Burdett's "Hospitals and Charities." Probably, however, most establishments would charge a higher fee than that mentioned. As to the "cure" mentioned we should advise our correspondent to have nothing to do with it.

C. O. H.—The plate is incorrect, but we doubt if it can be called illegal. The offenders would fall back upon the double meaning of the title of "Dr." as a defence. The matter is one that should be referred to the General Medical Council.

An Old L.S.A. Eng. cannot practise in all parts of America on his diploma. He will find in THE LANCET of Sept. 12th and Oct. 3rd, 1896, an account of the formalities required by the different States.

J. D. M. would be glad to know of a thoroughly reliable institution for inebriates where a man could be received at a moderate charge.

Assistant.—The fee belongs to the principal.

During the week marked copies of the following newspapers have been received: *Nottingham Guardian, Berkshire Chronicle, Wiltshire Times, Consett Guardian, Westmorland Gazette, Halifax Guardian, Hereford Times, New York Herald, Lyttelton Times, Todmorden Advertiser, Times of India, Pioneer Mail, Scotsman, Yarmouth Advertiser, Oxford Times, Architect, Derby Express, Rugby Advertiser, Hastings Times, Builder, Glasgow Herald, Isle of Wight Observer, Liverpool Daily Post, Englishman (Calcutta), Southend Echo, Middlesbrough Evening Telegraph, Bristol Mercury, Lancashire Express, Dundee Courier, South Wales Daily News, Llandudno Directory, Cheltenham Mercury, Hawick Advertiser, Yorkshire Post, Eastern Morning News, Western Morning News, Leeds Mercury, Brighton Argus, Salisbury Journal, Leek Times, Croydon Guardian, Enfield Chronicle, Walsall Advertiser, Sussex Daily News, Newport Advertiser, Herald of Wales, Birmingham Daily Post, Southampton Observer, West Briton Advertiser, Hemel Hempstead Gazette, Manchester Courier, Sanitary Record, Free Press (West Bromwich), Mining Journal, Local Government Chronicle, Reading Mercury, Brighton Gazette, Public Health Engineer, Surrey Advertiser, Hertfordshire Mercury, Local Government Journal, City Press, La Revue Mame (Paris), Vegetarian, Civil and Military Gazette (Lahore), The Age (Brisbane), Eastern Daily Press, Manchester Evening Chronicle, Hong-Kong Weekly Press, Notes and Queries, Lloyd's Weekly Newspaper, Kendal County News, West Middlesex Herald, Lytham Times, Kidderminster Times, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. T. R. Atkinson, Sherborne; Automobile Club of Great Britain, Secretary of; Dr. R. J. Aitken, Glasgow; Mr. C. Abbott, Burghead; Mons. J. Astier, Paris; Dr. H. H. Aitchison, Wallsend-on-Tyne; Mr. E. Armitage, Wailuku, Hawaiian Islands; Messrs. Allen and Hanburys, Lond.; *American X-ray Journal*, St. Louis, Editors of.

B.—Mr. E. J. Blackett, Lond.; Dr. F. T. Bond, Gloucester; Friedr. Bayer and Co., Elberfeld; Mr. F. L. Benham, Lond.; Mr. T. R. Bradford, Lond.; Mr. C. A. G. Browne, Lond.; Birkenhead Union, Clerk of; B. B. B., Lond.; Birmingham General Hospital, House Governor of; Mr. S. H. Benson, Lond.; Messrs. Blondeau et Cie, Lond.; Dr. P. H. Boyden, Thorpe Hamlet; Borough of Middlesbrough, Town Clerk of; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. J. B. S. Barnett, Kingston Hill.

C.—Mr. A. Cuff, Sheffield; Mr. T. R. Collins, Lond; *Cambridge Daily News*, Cambridge, Editor of; Messrs. J. and A. Churchill, Lond.; Mr. H. Connop, Brailsford; Dr. C., Lond.; Mr. R. Cuffe, Woodhall Spa; Mr. F. W. Clarke, Manchester; Mr. F. Collins, Halling; Messrs. E. Cook and Co., Lond.; Mr. T. Cooke, Lond.; Mr. R. A. Clarke, Teddington; Mr. T. R. Collins, Bath.

D.—Mr. G. L. Daube, Frankfurt-on-Maine; Surgeon-Lieut.-Col. S. L. Doble, Inverness; Dunlop Pneumatic Tyre Co., Lond.; Mr. Elliott Daunt, Sevenoaks.

E.—E., Lond.

F.—Mr. G. Fowler, Lond.; Foreign Press Office, Paris; Messrs. Ferris and Co., Bristol; Mr. E. A. Fall, Braunton.

G.—Dr. J. J. Grant, Edinburgh; General Medical Council, Lond., Registrar of, Lond.; Mr. A. E. Grimm, Lond.; Glasgow Royal Infirmary, Superintendent of; Guy's Hospital Medical School, Lond., Dean of.

H.—Mr. L. M. Haynes, Evesham; Messrs. C. J. Hewlett and Son, Lond.; Mr. W. Herbert, Birkenhead; Mr. J. W. Howell, Docking; Hospital for Women and Children, Leeds; Messrs. Hazell, Watson, and Viney, Lond.; Dr. T. Harris, Manchester; Mr. Hubert, Billingshurst; Mr. W. Hay, Hull; Mr. J. Heywood, Manchester; Mr. F. S. D. Hogg, Tillingham; Dr. S. Hawley, Walsall; Mr. Reginald Harrison, Lond.; Dr. William Horrocks, Bradford.

I.—*Ironmongers' Chronicle*, Lond., Manager of.

K.—Mr. A. Kingston, Royston; Dr. H. Kenwood, Stoke Newington; Messrs. R. A. Knight and Co., Lond.; Mr. G. D. Knight, Lond.

L.—Mr. J. A. Lunnis, Lond.; Dr. J. F. Little, Lond.; London and Provincial Dairy Co., Lond.; Messrs. T. Lupton and Co., Manchester; Mr. J. Lloyd, Chirk; Locum, Lond.; L.R.C.P., Banbury.

M.—Mr. William Mason; Medical Society of Victoria, Melbourne; Middlesbrough County Borough Asylum, Clerk of; Mr. J. C. McWalter, Dublin; Mr. R. O. Moon, Winchester; Messrs. J. Murdoch and Co., Lond.; Mr. R. Margerison, Winchester; Dr. H. Macnaughton-Jones, Lond.; M. O. W., Lond.; Milk Preparations Co., Brentwood.

N.—Mr. W. G. Nash, Bedford; Dr. Nissim, Paris; Messrs. Newton, Chambers, and Co., Sheffield; Dr. J. Norton, Lond.; *Newcastle Daily Journal*.

O.—*Occidental Medical Times*, Sacramento, U.S.A., Editor of; Messrs. Orridge and Co., Lond.; Omicron, Lond.

P.—Mr. J. Pollack, Glasgow; Mr. E. Pittway, Thaxted; Peacock Chemical Co., Lond.; Dr. T. H. S. Pullin, Sidmouth.

R.—Dr. H. M. Rigby, Lond.; Mr. H. W. Raich, Wimbledon; Mr. Mayo Robson, Leeds; Revolution Cycle Co., Dublin; R. M., Lond.; Royal Cornwall Infirmary, Truro, Secretary of; Messrs. Reynell and Son, Lond.; Dr. J. Ryan, Finnea; Royal Hospital for Children and Women, Lond., Secretary of; Mrs. A. Rowley, Lond.; Mr. J. F. Rawdon, Birkenhead.

S.—Mr. S. Snell, Sheffield; Society of Apothecaries of London, Secretary of; Mr. G. P. Streeter, Lond.; Dr. Sydney Stephenson, Lond.; Dr. R. Saundby, Birmingham; Mr. F. W. Sears, Lond.; Sanitas Co., Lond., Managing Director of; Mr. W. Slater, Cambridge; North Staffs Infirmary, Stoke-on-Trent, Secretary of; Mr. W. H. Smith, Manchester; Messrs. Street and Co., Lond.; Messrs. Street Bros., Lond.; Messrs. T. Smith, Lond.; Mr. E. Sharp, Truro; Mr. Morton Smale, Lond.; Mr. T. J. Savage, Lond.

T.—Dr. J. C. Thresh, Chelmsford; Tadcaster Union, Clerk of; Mr. F. W. Thornton, Huddersfield; Messrs. Teff and Co., Bristol; Dr. H. N. Taylor, Lond.

U.—University College, Lond., Dean of; Mr. J. R. Upton, Lond.; Mr. J. C. Umney, Lond.

V.—Dr. G. R. Vicars, Wood Dalling.

W.—Dr. A. McC. Weir, East Sheen; Miss Woodward, Folkestone; Dr. A. G. Worton, Nuneaton; Wolverhampton and Staffs General Hospital, House Governor of; Messrs. J. Wright and Co., Bristol; Messrs. Wills, Lond.; Mrs. L. Williams, Lond.; Dr. Walker, Middlesbrough.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. S. E. Atkins, Pinhoe; Mr. R. R. Anderson, Fern Hill; A. B., Taunton; Apothecary, Lond.; Alpha, Blackburn; Mr. G. J. Arnold, New Quay; African, Loud.

B.—Mr. J. Broom, Ottery St. Mary; Dr. F. Bolster, H.M.S. *Victory*, Portsmouth; T. B. Browne, Ltd., Lond.; Beta, Lond.; Booth-Clarkson, Liverpool; Messrs. Brown, Gould, and Co., Lond.; Bennett, Lond.; T. J. Bemridge, Exeter; Mr. W. Buck, Manchester; Messrs. W. H. Bailey and Son, Lond.; Dr. A. Butler, Epsom; Bona Fides, Lond.; Brighton, &c., Throat Hospital, Secretary of.

C.—Mr. F. A. Cotton, Dorsham; Messrs. A. Cohen and Co., Lond.; Mr. J. J. Culmer, Nassau, Bahamas; Messrs. Cooper and Preece, Ross-on-Wye; Clinical, Lond.; Cortland Wagon Co., Lond.; Mr. H. A. Collins, Saxmundham; Mr. J. B. Cameron, Lond.; Messrs. J. A. Carveth and Co., Toronto; Dr. H. W. Cross, Newcastle-on-Tyne; Dr. W. J. Codrington, H.M.S. *Hero*, Portsmouth; Centum, Lond.

D.—Mr. M. G. Davies, Penygroes; D. P. C., Lond.; Doctor, Huddersfield; D.P.H., Lond.; Delta, Lond.

E.—Mr. O. Edwards, Leominster; E. R., Lond.

F.—Mr. A. C. Farrington, Shelfanger; F. M. L., Lond.; Messrs. Fletcher, Fletcher, and Co., Lond.; Dr. F., Bury; F. S., Lond.

G.—Mr. H. J. Gibbs, Singapore; Dr. R. Griffith, Netherton; G., Manchester; Messrs. Gilyard Bros., Bradford; Gateshead Dispensary, Secretary of; G. B., Lond.

H.—Dr. C. A. Hill, Liverpool; Mr. W. C. Hearnden, Leatherhead; Dr. J. Hunter, Leicester; H. C., Bootle; H. F., Lond.; Mr. W. Halley, Lond.; Mr. E. J. Hayford, Cape Coast Castle.

J.—Dr. Jones, Lond.; Junius, Lond.; Mr. John, Runcorn; Mr. F. H. Jacob, Westbury.

K.—Mr. W. B. Kerr, Hindley; Dr. Keys, Castlefin; Messrs. Keith and Co., Edinburgh.

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O.—Oculus, Lond.

P.—Mr. F. Piggott, Cambridge; Parish of St. Luke, Chelsea, Clerk of; Permanent, Lond.

R.—Dr. A. Robinson, Rotherham; Richmond, Lond.; Dr. C. Reinhardt, South Stoke; Mr. A. Rainford, Port Dinorwic.

S.—Mr. W. Smith, Aberdeen; Mr. W. H. Smith, Weston; Dr. W. Smith, Bath; Mr. J. S. Sharman, Lond.; St Mungo's College, Glasgow, Secretary of; Mr. J. Stretton, Wokingham; Staffs General Infirmary, Secretary of; Sobriety, Lond.; Messrs. J. P. Segg and Co., Lond.; Spes, Lond.; Surgeon, Kettering; Scapula, Lond.; S., Lond; Mr. J. Sampson, York; Mr. A. Speight, Shrewsbury; Statim, Lond.; Sigma, Lond.; Messrs. Sykes, Josephine, and Co., Lond.; Mr. J. H. Stuart, Ballycastle; Mr. J. M. Slimon, Kirkintilloch; Sanitas, Lond.

T.—Mrs. Theobald, Leicester; Mr. J. Thin, Edinburgh.

U.—Urbs, Lond.

V.—Mr. J. M. Vallance, Thornley; Veritas, Lond.

W.—Dr. R. S. Wainewright, Lond.; Dr. H. Woothington, Scarborough; Whitwell, Shrewsbury; Warneford Asylum, Medical Superintendent of; Mr. J. F. Walker, Swallowfield; Walters, Lond.; Messrs. Widenmann, Broicher, and Co., Lond.

X.—X. Y., Lond.; X., Lond.; X., Clitheroe.

Y.—Mr. R. Yates, Lond.

Z.—Z., Lond.

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